

=> FILE REG

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STRUCTURE FILE UPDATES: 20 APR 2005 HIGHEST RN 848887-73-0
DICTIONARY FILE UPDATES: 20 APR 2005 HIGHEST RN 848887-73-0

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TSCA INFORMATION NOW CURRENT THROUGH JANUARY 18, 2005

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*
* The CA roles and document type information have been removed from *
* the IDE default display format and the ED field has been added, *
* effective March 20, 2005. A new display format, IDERL, is now *
* available and contains the CA role and document type information. *
*

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
<http://www.cas.org/ONLINE/DBSS/registryss.html>

=> FILE HCAPLU

FILE 'HCAPLUS' ENTERED AT 13:50:09 ON 21 APR 2005
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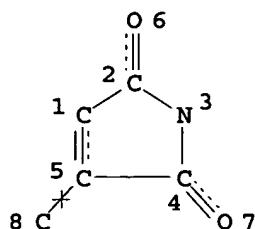
FILE COVERS 1907 - 21 Apr 2005 VOL 142 ISS 17
FILE LAST UPDATED: 20 Apr 2005 (20050420/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate
substance identification.

=> D QUE L9
L3

STR 1



NODE ATTRIBUTES:

NSPEC IS RC AT 8
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 8

STEREO ATTRIBUTES: NONE

L4 STR 2

C=C
1 2

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 2

STEREO ATTRIBUTES: NONE

L5 SCR 2043
L7 832 SEA FILE=REGISTRY SSS FUL L3 AND L4 AND L5
L8 327 SEA FILE=HCAPLUS ABB=ON L7
L9 25 SEA FILE=HCAPLUS ABB=ON L8 (L) CROSSLINK?

*832 polymers from
structure 1 and 2 queries*

25 CA references with

=> D L9 1-25 BIB ABS IND HITSTR

L9 ANSWER 1 OF 25 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 2004:414432 HCAPLUS
DN 140:408319
TI UV-absorbing (radiation-)crosslinkable resin compositions
IN Hasegawa, Mitsutaka; Tanba, Makoto; Taniuchi, Kentaro; Okazaki, Eiichi
PA Toa Gosei Chemical Industry Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 21 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

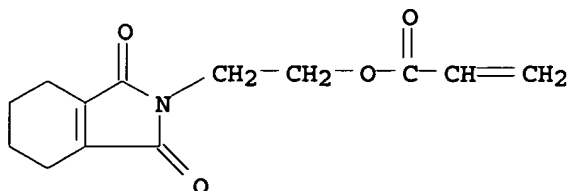
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2004143344	A2	20040520	JP 2002-311796	20021025
PRAI	JP 2002-311796		20021025		
AB	The comps., for coatings, adhesives, binders, etc., contain polymers				

containing maleimido groups and other UV-absorbing groups (e.g., benzotriazole group) and optionally visible-absorbing radical generators as photopolymn. initiators. Thus, 3,4,5,6-tetrahydrophthalimidoethyl acrylate 15, Ruva 93 [2-(2'-hydroxy-5'-methacryloxyethylphenyl)-2H-benzotriazole] 5, Me methacrylate 35, Bu acrylate 18, cyclohexyl acrylate 25, and methacrylic acid 2 g were polymerized in the presence of AIBN, applied on a PVC panel, and exposed to mercury lamp to give a cured layer showing no cracks, good adhesion to support, and ΔE (color difference) 0.4 in 1000-h accelerated weathering test.

IC ICM C08F008-00
ICS C08F220-00; C08F246-00; C08F290-04
CC 42-7 (Coatings, Inks, and Related Products)
Section cross-reference(s): 38
ST UV absorbing maleimido polymer benzotriazole bonded;
hydroxymethacryloxyethylphenylbenzotriazole hydrophthalimidoethyl acrylate copolymer coating weatherability
IT Coating materials
(UV-absorbing, photocurable; curable compns. of resins having benzotriazole-derived groups for UV-absorbing coatings)
IT Coating materials
(photocurable, UV-absorbing; curable compns. of resins having benzotriazole-derived groups for UV-absorbing coatings)
IT 689172-93-8P 689172-97-2P 689248-57-5P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(crosslinked; curable compns. of resins having benzotriazole-derived groups for UV-absorbing coatings)
IT 162881-26-7, Irgacure 819
RL: CAT (Catalyst use); TEM (Technical or engineered material use); USES (Uses)
(photopolymn. initiators; curable compns. of resins having benzotriazole-derived groups for UV-absorbing coatings)
IT 689172-93-8P 689172-97-2P 689248-57-5P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(crosslinked; curable compns. of resins having benzotriazole-derived groups for UV-absorbing coatings)
RN 689172-93-8 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, polymer with 2-[3-(2H-benzotriazol-2-yl)-4-hydroxyphenyl]ethyl 2-methyl-2-propenoate, butyl 2-propenoate, cyclohexyl 2-propenoate, 2-(1,3,4,5,6,7-hexahydro-1,3-dioxo-2H-isoindol-2-yl)ethyl 2-propenoate and methyl 2-propenoate (9CI) (CA INDEX NAME)

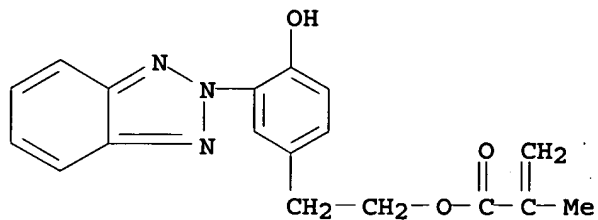
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CRN 125350-99-4
CMF C13 H15 N O4



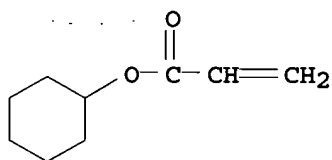
CM 2

CRN 96478-09-0
CMF C18 H17 N3 O3



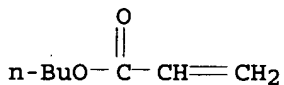
CM 3

CRN 3066-71-5
CMF C9 H14 O2



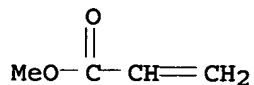
CM 4

CRN 141-32-2
CMF C7 H12 O2



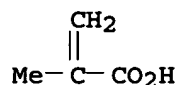
CM 5

CRN 96-33-3
CMF C4 H6 O2



CM 6

CRN 79-41-4
CMF C4 H6 O2



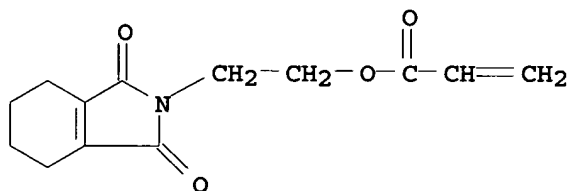
RN 689172-97-2 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-[3-(2H-benzotriazol-2-yl)-4-hydroxyphenyl]ethyl ester, polymer with butyl 2-propenoate, cyclohexyl 2-propenoate, [2-ethyl-2-[[2-[(1-oxo-2-propenyl)oxy]ethoxy]methyl]-1,3-propanediyl]bis(oxy-2,1-ethanediyl) di-2-propenoate, 2-(1,3,4,5,6,7-hexahydro-1,3-dioxo-2H-isoindol-2-yl)ethyl 2-propenoate, methyl 2-propenoate and 2-methyl-2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 125350-99-4

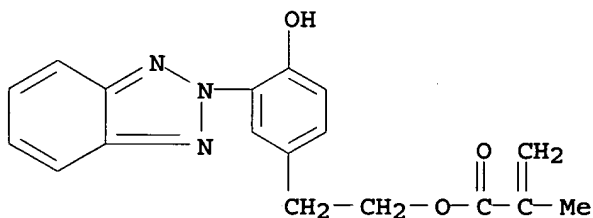
CMF C13 H15 N O4



CM 2

CRN 96478-09-0

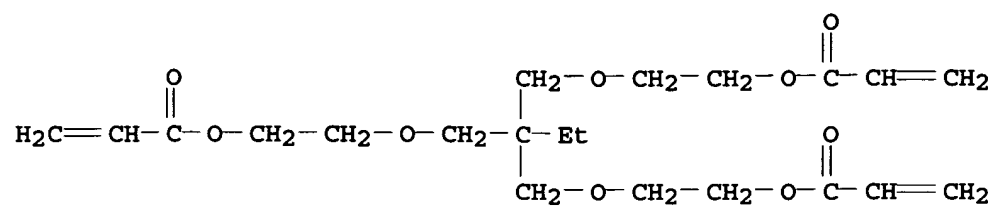
CMF C18 H17 N3 O3



CM 3

CRN 75577-70-7

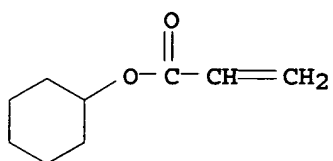
CMF C21 H32 O9



CM 4

CRN 3066-71-5

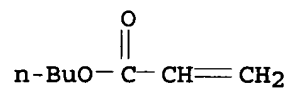
CMF C9 H14 O2



CM 5

CRN 141-32-2

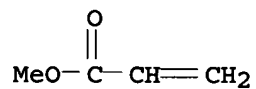
CMF C7 H12 O2



CM 6

CRN 96-33-3

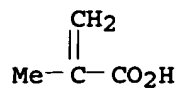
CMF C4 H6 O2



CM 7

CRN 79-41-4

CMF C4 H6 O2



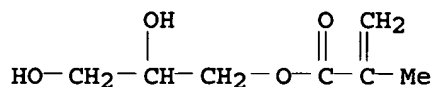
RN 689248-57-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with 2-[3-(2H-benzotriazol-2-yl)-4-hydroxyphenyl]ethyl 2-methyl-2-propenoate, butyl 2-propenoate, cyclohexyl 2-propenoate, 2-(1,3,4,5,6,7-hexahydro-1,3-dioxo-2H-isoindol-2-yl)ethyl 2-propenoate and methyl 2-propenoate, 2-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl ester (9CI) (CA INDEX NAME)

CM 1

CRN 5919-74-4

CMF C7 H12 O4



CM 2

CRN 689172-93-8

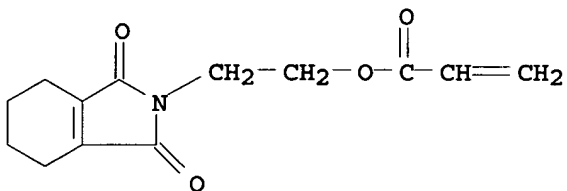
CMF (C18 H17 N3 O3 . C13 H15 N O4 . C9 H14 O2 . C7 H12 O2 . C4 H6 O2 . C4 H6 O2)x

CCI PMS

CM 3

CRN 125350-99-4

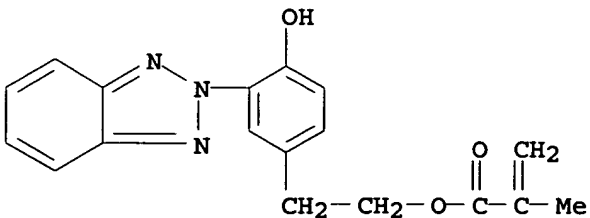
CMF C13 H15 N O4



CM 4

CRN 96478-09-0

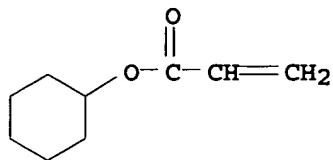
CMF C18 H17 N3 O3



CM 5

CRN 3066-71-5

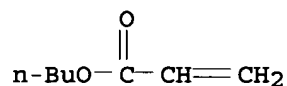
CMF C9 H14 O2



CM 6

CRN 141-32-2

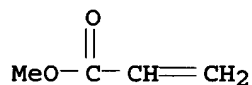
CMF C7 H12 O2



CM 7

CRN 96-33-3

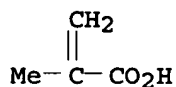
CMF C4 H6 O2



CM 8

CRN 79-41-4

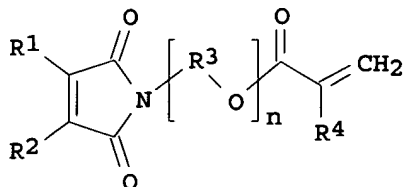
CMF C4 H6 O2



L9 ANSWER 2 OF 25 HCAPLUS COPYRIGHT 2005 ACS on STN
 AN 2004:52954 HCAPLUS
 DN 140:89974
 TI Active energy curable adhesives with good storageability, curability, and coating processibility, and no odor and adhesive sheets
 IN Taniuchi, Kentaro; Okazaki, Eiichi
 PA Toa Gosei Chemical Industry Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 20 pp.
 CODEN: JKXXAF

DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2004018749	A2	20040122	JP 2002-177734	20020618
PRAI	JP 2002-177734		20020618		
GI					



I

AB Title adhesives with weight average mol. weight 10000-50000 comprise (A) 5-30% imide

(meth)acrylates I and (B) 70-95% ethylenically unsatd. group-containing monomers, wherein R1, R2 = independently C≤4 alkyl or a group forming a ring; R3 = C1-6 alkylene; R4 = H or methyl; and n = 1-6 integer. Thus, 15 parts N-(2-acryloyloxyethyl)tetrahydrophthalimide and 85 parts 2-ethylhexyl acrylate were polymerized to give a copolymer with viscosity 120,000 mPa-s, number average mol. weight 6.5 + 103, and weight average mol.

weight 2.3

+ 104, which was applied on a polyethylene terephthalate film and cured with a high pressure mercury lamp to give an adhesive sheet with good curability, adhesion force 50 gf/in., adhesion retention ratio after store at 40° for 48 h, tack <2, and no odor.

IC ICM C09J157-00

ICS C08F020-36; C08F290-06; C09J004-00; C09J007-02; C09J133-06; C09J133-24; C09J135-00

CC 8-3 (Radiation Biochemistry)

ST activation energy curable adhesive storageability curability coating processability odor; acryloyloxyethyltetrahydrophthalimide ethylhexyl acrylate copolymer adhesive

IT Polyoxyalkylenes, preparation

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(acrylic, polyimide-, crosslinked; activation energy curable adhesives with good storageability, curability, and coating processability, and no odor for adhesive sheets)

IT Adhesive tapes

Tackifiers

(activation energy curable adhesives with good storageability, curability, and coating processability, and no odor for adhesive sheets)

IT Catalysts

(photochem.; activation energy curable adhesives with good storageability, curability, and coating processability, and no odor for adhesive sheets)

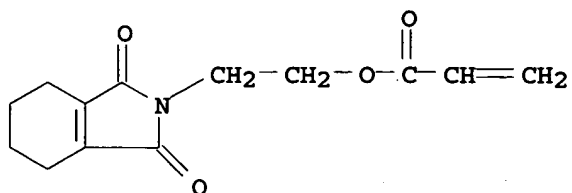
IT Acrylic polymers, uses

RL: TEM (Technical or engineered material use); USES (Uses)
(polyoxyalkylene-, polyimide-, crosslinked; activation energy curable

- adhesives with good storageability, curability, and coating processibility, and no odor for adhesive sheets)
- IT Adhesives
(radiation-curable; activation energy curable adhesives with good storageability, curability, and coating processibility, and no odor for adhesive sheets)
- IT Adhesives
(solventless; activation energy curable adhesives with good storageability, curability, and coating processibility, and no odor for adhesive sheets)
- IT Polyesters, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(substrate; activation energy curable adhesives with good storageability, curability, and coating processibility, and no odor for adhesive sheets)
- IT 645336-81-8P
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(crosslinked; activation energy curable adhesives with good storageability, curability, and coating processibility, and no odor for adhesive sheets)
- IT 645336-82-9P 645336-83-0P 645336-84-1P
645336-85-2P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(crosslinked; activation energy curable adhesives with good storageability, curability, and coating processibility, and no odor for adhesive sheets)
- IT 492-22-8, Thioxanthone 82799-44-8, 2,4-Diethylthioxanthone
RL: CAT (Catalyst use); USES (Uses)
(photoinitiator; activation energy curable adhesives with good storageability, curability, and coating processibility, and no odor for adhesive sheets)
- IT 25038-59-9, Polyethylene terephthalate, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(substrate; activation energy curable adhesives with good storageability, curability, and coating processibility, and no odor for adhesive sheets)
- IT 9003-49-0P, Polybutyl acrylate
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)
(tackifier; activation energy curable adhesives with good storageability, curability, and coating processibility, and no odor for adhesive sheets)
- IT 645336-81-8P
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(crosslinked; activation energy curable adhesives with good storageability, curability, and coating processibility, and no odor for adhesive sheets)
- RN 645336-81-8 HCAPLUS
- CN 2-Propenoic acid, 2-ethylhexyl ester, polymer with 2-(1,3,4,5,6,7-hexahydro-1,3-dioxo-2H-isoindol-2-yl)ethyl 2-propenoate (9CI) (CA INDEX NAME)

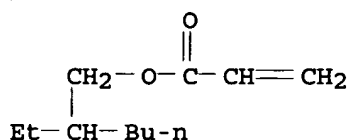
CM 1

CRN 125350-99-4
CMF C13 H15 N O4



CM 2

CRN 103-11-7
CMF C11 H20 O2



IT 645336-82-9P 645336-83-0P 645336-84-1P
645336-85-2P

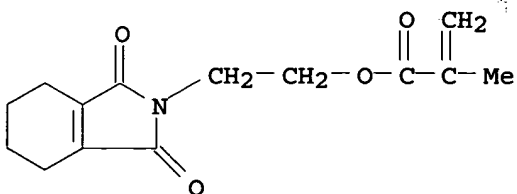
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(crosslinked; activation energy curable adhesives with good storageability, curability, and coating processability, and no odor for adhesive sheets)

RN 645336-82-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(1,3,4,5,6,7-hexahydro-1,3-dioxo-2H-isindol-2-yl)ethyl ester, polymer with 2-ethylhexyl 2-propenoate (9CI)
(CA INDEX NAME)

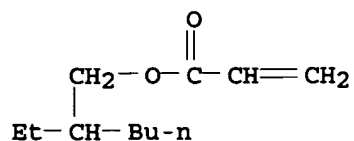
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CRN 77945-62-1
CMF C14 H17 N O4



CM 2

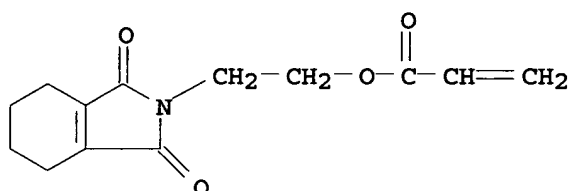
CRN 103-11-7
CMF C11 H20 O2



RN 645336-83-0 HCAPLUS
 CN 2-Propenoic acid, 2-ethylhexyl ester, polymer with 2-(1,3,4,5,6,7-hexahydro-1,3-dioxo-2H-isoindol-2-yl)ethyl 2-propenoate and 2-hydroxyethyl 2-propenoate (9CI) (CA INDEX NAME)

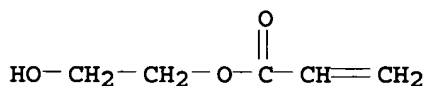
CM 1

CRN 125350-99-4
 CMF C13 H15 N O4



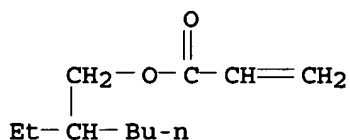
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CRN 818-61-1
 CMF C5 H8 O3



CM 3

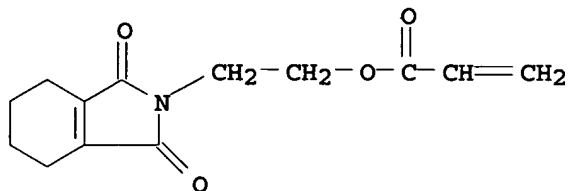
CRN 103-11-7
 CMF C11 H20 O2



RN 645336-84-1 HCAPLUS
 CN 2-Propenoic acid, polymer with 2-ethylhexyl 2-propenoate and 2-(1,3,4,5,6,7-hexahydro-1,3-dioxo-2H-isoindol-2-yl)ethyl 2-propenoate (9CI) (CA INDEX NAME)

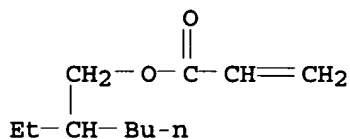
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CRN 125350-99-4
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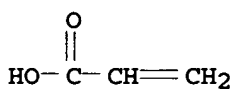
CM 2

CRN 103-11-7
CMF C11 H20 O2



CM 3

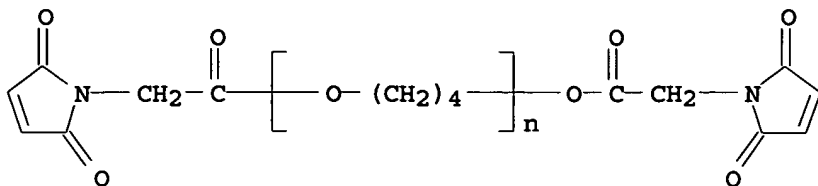
CRN 79-10-7
CMF C3 H4 O2



RN 645336-85-2 HCAPLUS
CN 2-Propenoic acid, 2-ethylhexyl ester, polymer with α -[(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)acetyl]- ω -[[[(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)acetyl]oxyl]poly(oxy-1,4-butanediyl) and 2-(1,3,4,5,6,7-hexahydro-1,3-dioxo-2H-isoindol-2-yl)ethyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

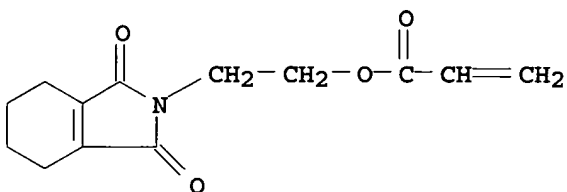
CRN 216249-51-3
CMF (C4 H8 O)_n C12 H8 N2 O7
CCI PMS



CM 2

CRN 125350-99-4

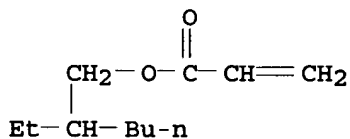
CMF C13 H15 N O4



CM 3

CRN 103-11-7

CMF C11 H20 O2



L9 ANSWER 3 OF 25 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2003:752925 HCAPLUS

DN 139:252533

TI Colored negative-working photoresist composition for manufacture of color filters

IN Fujita, Kazuo

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 15 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003270421	A2	20030925	JP 2002-70473	20020314
PRAI	JP 2002-70473		20020314		

AB Title photoresist composition is characterized by containing a coloring agent and a

photo-crosslinkable polymer having at least one maleimide group in the

side chain.

IC ICM G02B005-20
ICS G03F007-038

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST maleimide crosslinkable polymer photoresist color filter

IT Negative photoresists
Optical filters
(colored neg.-working photoresist composition for manufacture of color filters)

IT 231299-33-5P
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(photo-crosslinkable polymers for colored neg.-working photoresist composition)

IT 596839-89-3
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(photo-crosslinkable polymers for colored neg.-working photoresist composition)

IT 63729-56-6P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(preparation of photo-crosslinkable polymers for colored neg.-working photoresist composition)

IT 920-46-7, Methacryloyl chloride 34321-83-0, N-(3-Hydroxypropyl)dimethylmaleimide
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of photo-crosslinkable polymers for colored neg.-working photoresist composition)

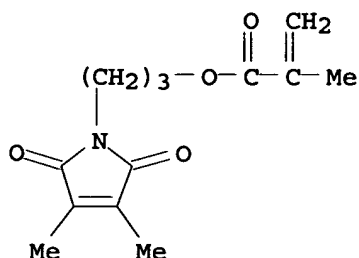
IT 231299-33-5P
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(photo-crosslinkable polymers for colored neg.-working photoresist composition)

RN 231299-33-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with 3-(2,5-dihydro-3,4-dimethyl-2,5-dioxo-1H-pyrrol-1-yl)propyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

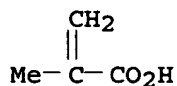
CRN 63729-56-6
CMF C13 H17 N O4



CM 2

CRN 79-41-4

CMF C4 H6 O2



IT 596839-89-3

RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(photo-crosslinkable polymers for colored neg.-working photoresist composition)

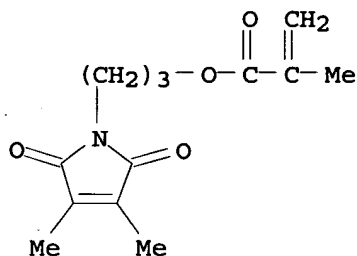
RN 596839-89-3 HCAPLUS

CN 1,2-Cyclohexanedicarboxylic acid, mono[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl] ester, polymer with 3-(2,5-dihydro-3,4-dimethyl-2,5-dioxo-1H-pyrrol-1-yl)propyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 63729-56-6

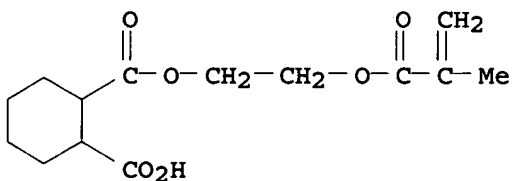
CMF C13 H17 N O4



CM 2

CRN 51252-88-1

CMF C14 H20 O6



L9 ANSWER 4 OF 25 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2003:194903 HCAPLUS

DN 138:229278

TI Negatively working presensitized lithographic original plates providing stain-free printed materials

IN Kawamura, Koichi; Yamazaki, Sumiaki; Takahashi, Miki

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 14 pp.

KATHLEEN FULLER EIC 1700 REMSON 4B28 571/272-2505

CODEN: JKXXAF

DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003075992	A2	20030312	JP 2001-261852	20010830
PRAI	JP 2001-261852		20010830		

AB The original plate has (A) a photocrosslinkable layer containing photocrosslinkable polymers bearing unsatd. bonds which can be dimerized by light on (B) a support having a hydrophilic surface containing hydrophilic graft polymer chains. Adhesion strength of the photosensitive layer and the support has been improved.

IC ICM G03F007-00

ICS G03F007-027; G03F007-09

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38

ST hydrophilic graft copolymer support lithog plate; neg presensitized lithog original plate; light dimerizable group photopolymer lithog plate

IT Lithographic plates

(neg.-working presensitized; neg.-working presensitized lithog. original plates providing stain-free printed materials)

IT Polyesters, uses

RL: TEM (Technical or engineered material use); USES (Uses)

(support; neg.-working presensitized lithog. original plates providing stain-free printed materials)

IT 149295-37-4, Methacrylic acid-N-[6-(methacryloyloxy)hexyl]-2,3-dimethylmaleimide-methyl methacrylate copolymer

RL: TEM (Technical or engineered material use); USES (Uses)

(crosslinked; neg.-working presensitized lithog. original plates providing stain-free printed materials)

IT 7429-90-5, Aluminum, uses 25038-59-9, M 4100, uses

RL: TEM (Technical or engineered material use); USES (Uses)

(support; neg.-working presensitized lithog. original plates providing stain-free printed materials)

IT 440659-47-2P, Allyl methacrylate-bisphenol A polyethylene glycol diether diacrylate-methacrylic acid-sodium styrenesulfonate graft copolymer

499783-94-7P, Acrylamide-allyl methacrylate-bisphenol A polyethylene glycol diether diacrylate-methacrylic acid graft copolymer

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(surface-graft, hydrophilic layer on support; neg.-working presensitized lithog. original plates providing stain-free printed materials)

IT 149295-37-4, Methacrylic acid-N-[6-(methacryloyloxy)hexyl]-2,3-dimethylmaleimide-methyl methacrylate copolymer

RL: TEM (Technical or engineered material use); USES (Uses)

(crosslinked; neg.-working presensitized lithog. original plates providing stain-free printed materials)

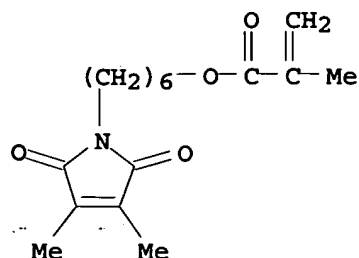
RN 149295-37-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with 6-(2,5-dihydro-3,4-dimethyl-2,5-dioxo-1H-pyrrol-1-yl)hexyl 2-methyl-2-propenoate and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

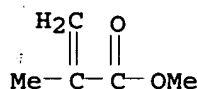
CRN 63740-41-0

CMF C16 H23 N O4



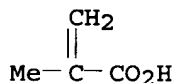
CM 2

CRN 80-62-6
CMF C5 H8 O2



CM 3

CRN 79-41-4
CMF C4 H6 O2



L9 ANSWER 5 OF 25 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 2003:111088 HCAPLUS
DN 138:155114
TI Water-based crosslinkable resin compositions useful as durable water-repellent coatings
IN Hasegawa, Mitsutaka; Maeda, Keiji; Okazaki, Eiichi; Taguchi, Hiromu
PA Toa Gosei Chemical Industry Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003041132	A2	20030213	JP 2001-226715	20010726
PRAI	JP 2001-226715		20010726		

AB Title comps. comprise hydrophilic polymers with maleimido, silicon, and acid groups or their salts and hydrophobic polymers. Thus, a composition comprising 20 parts hydrophilic polymer obtained from 3,4,5,6-tetrahydrophthalimidoethyl acrylate, X 22-174DX, cyclohexyl methacrylate, Bu acrylate, 2-hydroxyethyl methacrylate, methacrylic acid, and NH3 and 80 parts hydrophobic polymer obtained from 3,4,5,6-tetrahydrophthalimidoethyl acrylate, cyclohexyl methacrylate, Bu acrylate, Bu methacrylate,

2-hydroxyethyl methacrylate, methacrylic acid, NH₃, and Aqualon HS 10 was applied on an aluminum plate and exposed to sun for 3 mo showing good water resistance and water repellency.

IC ICM C08L101-02

ICS C08L101-12

CC 42-10 (Coatings, Inks, and Related Products)

Section cross-reference(s): 37, 38, 40

ST water based crosslinkable resin compn durable water repellent coating; maleimido silicon acid contg hydrophilic polymer water repellent coating

IT Polyoxyalkylenes, uses

Polysiloxanes, uses

RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (acrylic, graft; water-based crosslinkable resin compns. useful as durable water-repellent coatings)

IT Polysiloxanes, uses

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (acrylic-polyoxyalkylene-, cured coating; water-based crosslinkable resin compns. useful as durable water-repellent coatings)

IT Polyoxyalkylenes, uses

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (acrylic-polysiloxane-, cured coating; water-based crosslinkable resin compns. useful as durable water-repellent coatings)

IT Coating materials

(water-resistant, water-thinned; water-based crosslinkable resin compns. useful as durable water-repellent coatings)

IT 495373-98-3P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (cured coating; water-based crosslinkable resin compns. useful as durable water-repellent coatings)

IT 495373-92-7P 495373-94-9P 495373-96-1P

495374-00-0DP, trimethylsilyl-terminated 495374-08-8P

495374-10-2P

RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (water-based crosslinkable resin compns. useful as durable water-repellent coatings)

IT 495373-98-3P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (cured coating; water-based crosslinkable resin compns. useful as durable water-repellent coatings)

RN 495373-98-3 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with butyl 2-methyl-2-propenoate, butyl 2-propenoate, cyclohexyl 2-methyl-2-propenoate, α -[dimethyl[3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl]silyl]- ω -[(trimethylsilyl)oxy]poly[oxy(dimethylsilylene)], 2-(1,3,4,5,6,7-hexahydro-1,3-dioxo-2H-isindol-2-yl)ethyl 2-propenoate, 2-hydroxyethyl 2-methyl-2-propenoate and α -sulfo- ω -[4-nonyl-2-(1-propenyl)phenoxy]poly(oxy-1,2-ethanediyl) ammonium salt, ammonium salt (9CI) (CA INDEX NAME)

CM 1

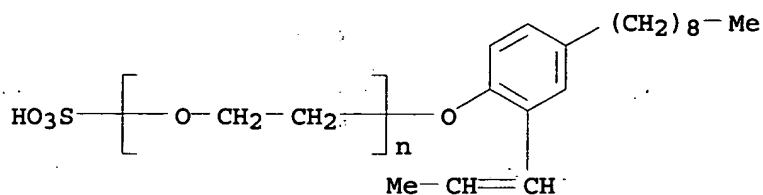
CRN 495373-97-2

CMF (C13 H15 N O4 . C10 H16 O2 . C8 H14 O2 . C7 H12 O2 . C6 H10 O3 . C4 H6 O2 . (C2 H6 O Si)n C12 H26 O3 Si2 . (C2 H4 O)n C18 H28 O4 S . H3

N)x
CCI PMS

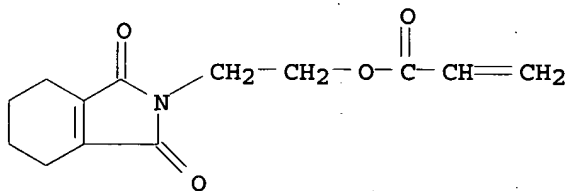
CM 2

CRN 140651-97-4
CMF (C2 H4 O)n C18 H28 O4 S . H3 N
CCI PMS



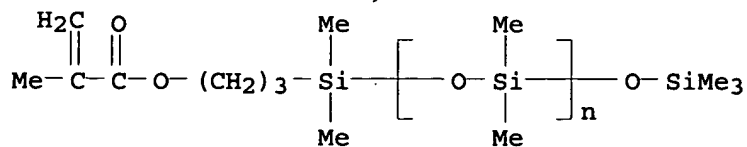
CM 3

CRN 125350-99-4
CMF C13 H15 N O4



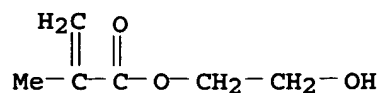
CM 4

CRN 123109-42-2
CMF (C2 H6 O Si)n C12 H26 O3 Si2
CCI PMS



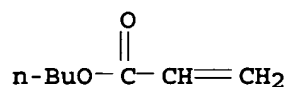
CM 5

CRN 868-77-9
CMF C6 H10 O3



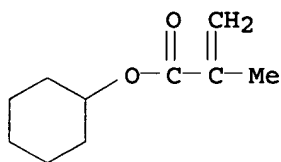
CM 6

CRN 141-32-2
CMF C7 H12 O2



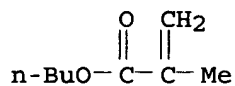
CM 7

CRN 101-43-9
CMF C10 H16 O2



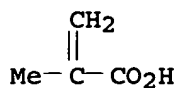
CM 8

CRN 97-88-1
CMF C8 H14 O2



CM 9

CRN 79-41-4
CMF C4 H6 O2



IT 495373-92-7P 495373-94-9P 495374-00-0DP,
trimethylsilyl-terminated 495374-08-8P
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM

(Technical or engineered material use); PREP (Preparation); USES (Uses)
(water-based crosslinkable resin compns. useful as durable
water-repellent coatings)

RN 495373-92-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate, cyclohexyl
2-methyl-2-propenoate, α -[dimethyl[3-[(2-methyl-1-oxo-2-
propenyl)oxy]propyl]silyl]- ω -[(trimethylsilyl)oxy]poly[oxy(dimethyls
ilylene)], 2-(1,3,4,5,6,7-hexahydro-1,3-dioxo-2H-isoindol-2-yl)ethyl
2-propenoate and 2-hydroxyethyl 2-methyl-2-propenoate, graft, ammonium
salt (9CI) (CA INDEX NAME)

CM 1

CRN 495373-91-6

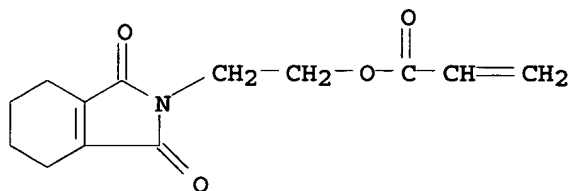
CMF (C13 H15 N O4 . C10 H16 O2 . C7 H12 O2 . C6 H10 O3 . C4 H6 O2 . (C2
H6 O Si)n C12 H26 O3 Si2)x

CCI PMS

CM 2

CRN 125350-99-4

CMF C13 H15 N O4

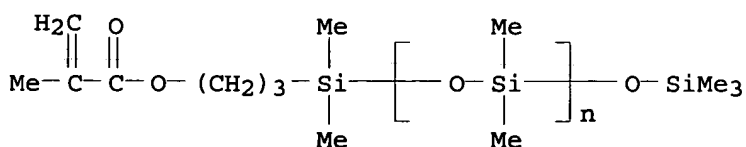


CM 3

CRN 123109-42-2

CMF (C2 H6 O Si)n C12 H26 O3 Si2

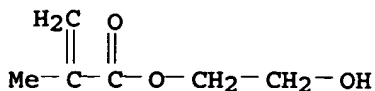
CCI PMS



CM 4

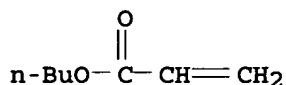
CRN 868-77-9

CMF C6 H10 O3



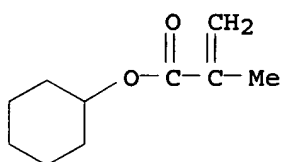
CM 5

CRN 141-32-2
CMF C7 H12 O2



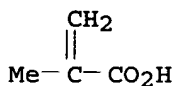
CM 6

CRN 101-43-9
CMF C10 H16 O2



CM 7

CRN 79-41-4
CMF C4 H6 O2



RN 495373-94-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with butyl 2-methyl-2-propenoate, butyl 2-propenoate, cyclohexyl 2-methyl-2-propenoate, 2-(1,3,4,5,6,7-hexahydro-1,3-dioxo-2H-isoindol-2-yl)ethyl 2-propenoate, 2-hydroxyethyl 2-methyl-2-propenoate and α -sulfo- ω -[4-nonyl-2-(1-propenyl)phenoxy]poly(oxy-1,2-ethanediyl) ammonium salt, graft, ammonium salt (9CI) (CA INDEX NAME)

CM 1

CRN 495373-93-8

CMF (C13 H15 N O4 . C10 H16 O2 . C8 H14 O2 . C7 H12 O2 . C6 H10 O3 . C4 H6 O2 . (C2 H4 O)n C18 H28 O4 S . H3 N)x

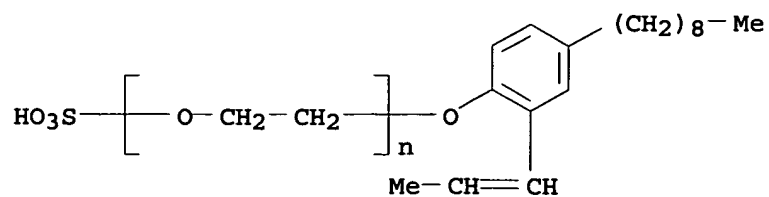
CCI PMS

CM 2

CRN 140651-97-4

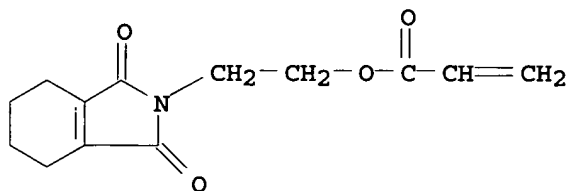
CMF (C2 H4 O)n C18 H28 O4 S . H3 N

CCI PMS



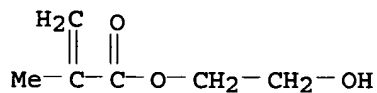
CM 3

CRN 125350-99-4
CMF C13 H15 N O4



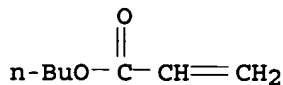
CM 4

CRN 868-77-9
CMF C6 H10 O3



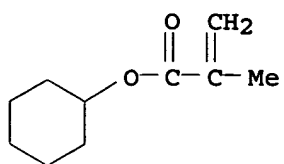
CM 5

CRN 141-32-2
CMF C7 H12 O2



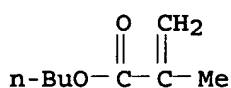
CM 6

CRN 101-43-9
CMF C10 H16 O2



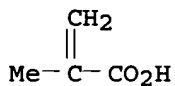
CM 7

CRN 97-88-1
CMF C8 H14 O2



CM 8

CRN 79-41-4
CMF C4 H6 O2



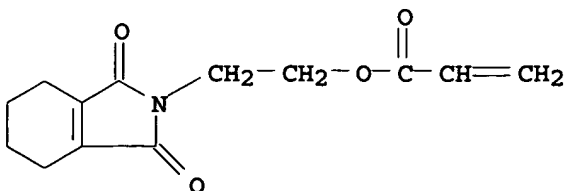
RN 495374-00-0 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate, cyclohexyl 2-methyl-2-propenoate, dimethylsilanediol, 2-(1,3,4,5,6,7-hexahydro-1,3-dioxo-2H-isoindol-2-yl)ethyl 2-propenoate and 2-hydroxyethyl 2-methyl-2-propenoate, graft, ammonium salt (9CI) (CA INDEX NAME)

CM 1

CRN 495373-99-4
CMF (C13 H15 N O4 . C10 H16 O2 . C7 H12 O2 . C6 H10 O3 . C4 H6 O2 . C2 H8 O2 Si)x
CCI PMS

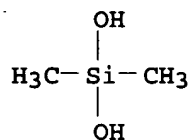
CM 2

CRN 125350-99-4
CMF C13 H15 N O4



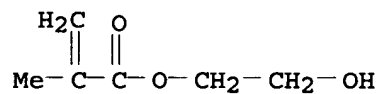
CM 3

CRN 1066-42-8
CMF C2 H8 O2 Si



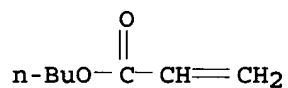
CM 4

CRN 868-77-9
CMF C6 H10 O3



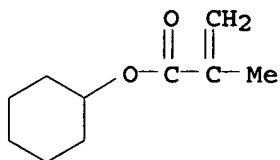
CM 5

CRN 141-32-2
CMF C7 H12 O2



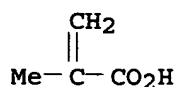
CM 6

CRN 101-43-9
CMF C10 H16 O2



CM 7

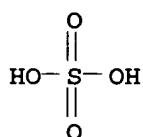
CRN 79-41-4
CMF C4 H6 O2



RN 495374-08-8 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-, polymer with butyl 2-methyl-2-propenoate, butyl 2-propenoate, cyclohexyl 2-methyl-2-propenoate, 2-(1,3,4,5,6,7-hexahydro-1,3-dioxo-2H-isoindol-2-yl)ethyl 2-propenoate, 2-hydroxyethyl 2-methyl-2-propenoate and oxirane, hydrogen sulfate, graft, ammonium salt (9CI) (CA INDEX NAME)

CM 1

CRN 7664-93-9
 CMF H2 O4 S

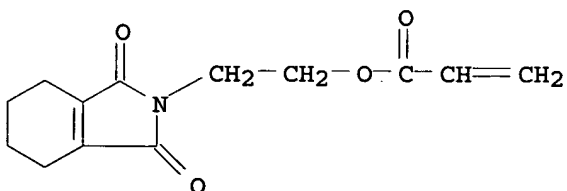


CM 2

CRN 495374-07-7
 CMF (C13 H15 N O4 . C10 H16 O2 . C8 H14 O2 . C7 H12 O2 . C6 H10 O3 . C4 H6 O2 . C2 H4 O)x
 CCI PMS

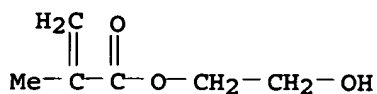
CM 3

CRN 125350-99-4
 CMF C13 H15 N O4



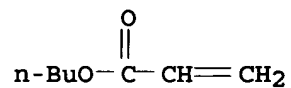
CM 4

CRN 868-77-9
 CMF C6 H10 O3



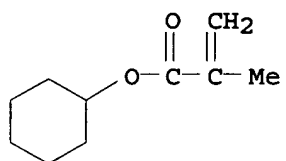
CM 5

CRN 141-32-2
CMF C7 H12 O2



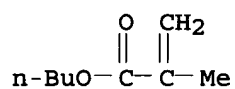
CM 6

CRN 101-43-9
CMF C10 H16 O2



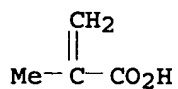
CM 7

CRN 97-88-1
CMF C8 H14 O2



CM 8

CRN 79-41-4
CMF C4 H6 O2



CM 9

CRN 75-21-8
CMF C2 H4 O



L9 ANSWER 6 OF 25 HCAPLUS COPYRIGHT 2005 ACS on STN
 AN 2002:925316 HCAPLUS
 DN 138:5712
 TI Curable resin composition for water-thinned coating
 IN Inukai, Hiroshi; Hasegawa, Mitsutaka; Numa, Nobushige; Sugishima, Masami;
 Nakamura, Koki
 PA Kansai Paint Co., Ltd., Japan
 SO Eur. Pat. Appl., 24 pp.
 CODEN: EPXXDW
 DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1262495	A1	20021204	EP 2002-11632	20020529
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	JP 2002356643	A2	20021213	JP 2001-162082	20010530
	US 2003065068	A1	20030403	US 2002-156790	20020530
PRAI	JP 2001-162082	A	20010530		

AB The title curable resin composition for a water-base coating material comprises (a) a maleimide group-containing copolymer obtained by copolymerizing an ethylenically unsaturated monomer having a maleimide group and other ethylenically unsaturated monomer, (b) a carbonyl group-containing copolymer obtained by copolymerizing an ethylenically unsaturated monomer having a carbonyl group and other ethylenically unsaturated monomer, and (c) a crosslinker compound having ≥ 2 functional groups/mol. which are the same or different and selected from a hydrazide group, a semicarbazide group and a hydrazone group; and which can readily be cured regardless of coating environment.

IC ICM C08F008-30
 CC 42-10 (Coatings, Inks, and Related Products)
 Section cross-reference(s): 37

ST maleimide group containing polymer blend coating water resistance; carbonyl group containing polymer blend crosslinked coating

IT Coating materials
 (water-resistant; curable resin composition of crosslinkable carbonyl group-containing copolymer and maleimide group-containing copolymer for coatings having water and soil resistance)

IT Coating materials
 (water-thinned; curable resin composition of crosslinkable carbonyl group-containing copolymer and maleimide group-containing copolymer for coatings having water and soil resistance)

IT 136-64-1, Terephthalic acid dihydrazide 497-18-7, Carbonic acid dihydrazide 925-83-7, Sebacic acid dihydrazide 996-98-5, Oxalic acid dihydrazide 1071-93-8, Adipic acid dihydrazide 1508-67-4, Glutaric acid dihydrazide 2760-98-7, Isophthalic acid dihydrazide 3538-81-6, Fumaric acid dihydrazide 3645-45-2, Phthalic acid dihydrazide 3815-86-9, Malonic acid dihydrazide 4146-43-4, Succinic acid dihydrazide 6641-35-6, Itaconic acid dihydrazide 14628-35-4, Maleic acid dihydrazide 18960-42-4, Citric acid trihydrazide 19376-46-6, Ethylenediaminetetraacetic acid tetrahydrazide 80155-82-4 477247-08-8 477247-09-9

RL: TEM (Technical or engineered material use); USES (Uses)

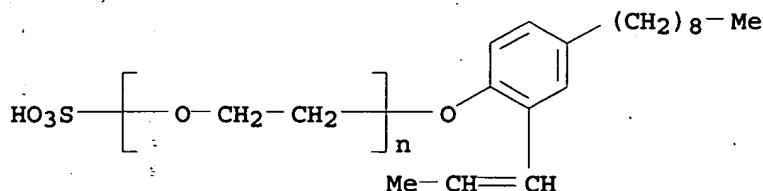
- (crosslinker; curable resin composition of crosslinkable carbonyl group-containing copolymer and maleimide group-containing copolymer for coatings having water and soil resistance)
- IT 446884-26-0P 477247-03-3P, Aqualon HS 10-butyl acrylate-butyl methacrylate-imide acrylate-methyl methacrylate-methacrylic acid copolymer 477247-04-4P, Butyl acrylate-butyl methacrylate-imide acrylate-methyl methacrylate-methacrylic acid-Newcol 707SF copolymer 477247-05-5P, Acrylic acid-butyl acrylate-diacetoneacrylamide-2-ethylhexyl acrylate-methyl methacrylate-Newcol 707SF-styrene copolymer 477247-06-6P 477247-07-7P
- RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (curable resin composition of **crosslinkable** carbonyl group-containing copolymer and maleimide group-containing copolymer for coatings having water and soil resistance)
- IT 9016-45-9DP, Newcol 568, reaction products with Et silicate 11099-06-2DP, Ethyl Silicate 48, reaction products with polyoxyethylene nonylphenol ether
- RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses) (for stain resistance; curable resin composition of crosslinkable carbonyl group-containing copolymer and maleimide group-containing copolymer for coatings having water and soil resistance)
- IT 477247-03-3P, Aqualon HS 10-butyl acrylate-butyl methacrylate-imide acrylate-methyl methacrylate-methacrylic acid copolymer 477247-04-4P, Butyl acrylate-butyl methacrylate-imide acrylate-methyl methacrylate-methacrylic acid-Newcol 707SF copolymer
- RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (curable resin composition of **crosslinkable** carbonyl group-containing copolymer and maleimide group-containing copolymer for coatings having water and soil resistance)
- RN 477247-03-3 HCAPLUS
- CN 2-Propenoic acid, 2-methyl-, polymer with butyl 2-methyl-2-propenoate, butyl 2-propenoate, 2-(1,3,4,5,6,7-hexahydro-1,3-dioxo-2H-isoindol-2-yl)ethyl 2-propenoate, methyl 2-methyl-2-propenoate and α -sulfo- ω -(4-nonyl-2-(1-propenyl)phenoxy)poly(oxy-1,2-ethanediyl) ammonium salt (9CI) (CA INDEX NAME)

CM 1

CRN 140651-97-4

CMF (C2 H4 O)_n C18 H28 O4 S . H3 N

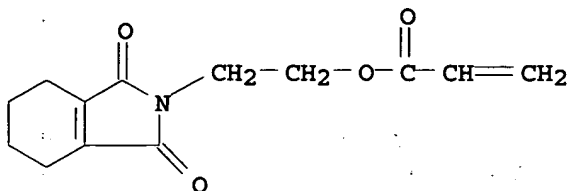
CCI PMS



● NH₃

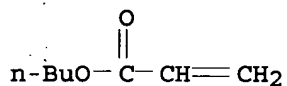
CM 2

CRN 125350-99-4
CMF C13 H15 N O4



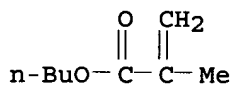
CM 3

CRN 141-32-2
CMF C7 H12 O2



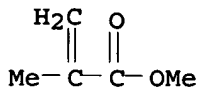
CM 4

CRN 97-88-1
CMF C8 H14 O2



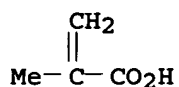
CM 5

CRN 80-62-6
CMF C5 H8 O2



CM 6

CRN 79-41-4
CMF C4 H6 O2



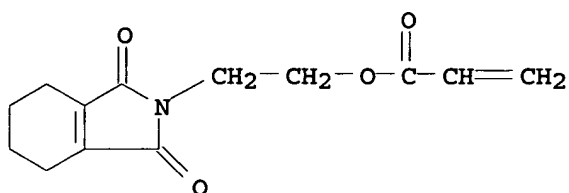
RN 477247-04-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with butyl 2-methyl-2-propenoate, butyl 2-propenoate, 2-(1,3,4,5,6,7-hexahydro-1,3-dioxo-2H-isoindol-2-yl)ethyl 2-propenoate, methyl 2-methyl-2-propenoate and α -sulfo- ω -(2-propenyloxy)poly(oxy-1,2-ethanediyl) ammonium salt (9CI) (CA INDEX NAME)

CM 1

CRN 125350-99-4

CMF C13 H15 N O4

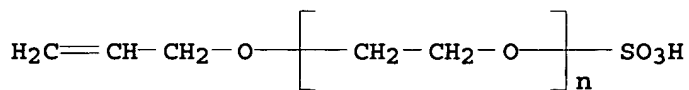


CM 2

CRN 55866-85-8

CMF (C2 H4 O)_n C3 H6 O4 S . H3 N

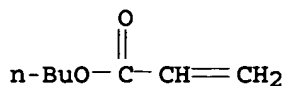
CCI PMS



CM 3

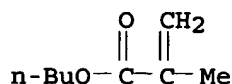
CRN 141-32-2

CMF C7 H12 O2



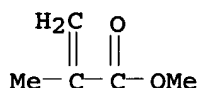
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CRN 97-88-1
CMF C8 H14 O2



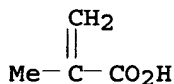
CM 5

CRN 80-62-6
CMF C5 H8 O2



CM 6

CRN 79-41-4
CMF C4 H6 O2



RE.CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 7 OF 25 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 2002:792183 HCAPLUS
DN 137:317954
TI Photosensitive composition and negative working lithographic printing
plate
IN Kunita, Kazuto
PA Fuji Photo Film Co., Ltd., Japan
SO Eur. Pat. Appl., 74 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1249731	A2	20021016	EP 2002-7216	20020327
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	JP 2002311569	A2	20021023	JP 2001-115598	20010413
	CN 1388412	A	20030101	CN 2002-141073	20020327
	US 2003091933	A1	20030515	US 2002-106326	20020327
	US 6858373	B2	20050222		
PRAI	JP 2001-115598	A	20010413		

AB The present invention relates to a photosensitive composition comprising a resin containing a repeating unit corresponding to a monomer having a

structure represented by RaRbX1C(=O)Q1 ($\text{Q1} = \text{CN}$, COX2 ; $\text{X1,2} = \text{halogen}$, a group connected through a hetero atom; $\text{Ra,b} = \text{H}$, halogen, CN , organic residue; X1 and X2 , Ra and Rb , X1 and Ra or Rb may combine with each other to form a cyclic structure), and a neg. working lithog. printing plate having a neg. working photosensitive layer comprising the above described photosensitive composition. The present invention provides a photosensitive composition and a neg. working lithog. printing plate, which is excellent in both the film strength of a photosensitive layer and the preservation stability in a photo-crosslinking composition that is promising in image forming techniques from the standpoint of the strength of photosensitive layer.

IC ICM G03F007-027
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 Section cross-reference(s): 35, 38
 ST neg working lithog printing plate resin
 IT Coating materials
 Lithographic plates
 (photosensitive composition for neg. working lithog. printing plate)
 IT 125604-88-8 304882-18-6
 RL: TEM (Technical or engineered material use); USES (Uses)
 (acid generator; photosensitive composition for neg. working lithog. printing plate containing)
 IT 603-48-5, Leuco crystal violet 65722-01-2, Victoria Pure Blue
 RL: TEM (Technical or engineered material use); USES (Uses)
 (color agent; photosensitive composition for neg. working lithog. printing plate containing)
 IT 409332-98-5P 471267-44-4P
 RL: POF (Polymer in formulation); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
 (photosensitive composition for neg. working lithog. printing plate containing)
 IT 89697-56-3DP, ion exchanged with acrylic polymers 212139-47-4DP, ion exchanged with acrylic polymers 409332-98-5DP, ionic crosslinking with diazo resin 471266-56-5DP, ionic crosslinking with diazo resin 471266-60-1DP, ionic crosslinking with diazo resin 471266-62-3DP, ionic crosslinking with diazo resin 471266-64-5P 471266-67-8P 471266-70-3DP, reaction product with Resol resin 471266-77-0DP, ionic crosslinking with diazo resin 471266-80-5DP, ionic crosslinking with diazo resin 471266-82-7DP, ionic crosslinking with diazo resin 471266-85-0P 471266-88-3P 471266-92-9P 471267-47-7DP, ion exchanged with acrylic polymers
 RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (photosensitive composition for neg. working lithog. printing plate containing)
 IT 471266-48-5 471266-51-0 471266-74-7
 RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
 (photosensitive composition for neg. working lithog. printing plate containing)
 IT 471266-96-3P 471267-00-2P 471267-02-4P 471267-04-6P 471267-06-8P 471267-08-0P 471267-10-4P 471267-13-7P 471267-16-0P 471267-18-2P 471267-21-7P 471267-24-0P 471267-29-5P 471267-31-9P 471267-34-2P 471267-36-4P 471267-40-0P
 RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (photosensitive composition for neg. working lithog. printing plate containing)
 IT 201024-57-9 384850-16-2 471266-94-1

RL: TEM (Technical or engineered material use); USES (Uses)
(sensitizing dye; photosensitive composition for neg. working lithog.
printing plate containing)

IT 471266-56-5DP, ionic crosslinking with diazo resin

RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or
engineered material use); PREP (Preparation); USES (Uses)
(photosensitive composition for neg. working lithog. printing plate
containing)

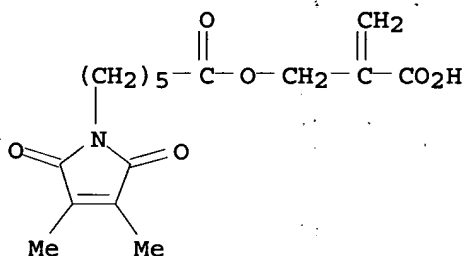
RN 471266-56-5 HCAPLUS

CN 1H-Pyrrole-1-hexanoic acid, 2,5-dihydro-3,4-dimethyl-2,5-dioxo-,
2-carboxy-2-propenyl ester, polymer with 2-(methoxycarbonyl)-2-propenyl
2,5-dihydro-3,4-dimethyl-2,5-dioxo-1H-pyrrole-1-hexanoate (9CI) (CA INDEX
NAME)

CM 1

CRN 471266-55-4

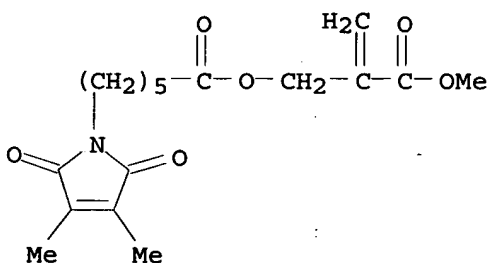
CMF C16 H21 N O6



CM 2

CRN 471266-54-3

CMF C17 H23 N O6



L9 ANSWER 8 OF 25 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2002:747777 HCAPLUS

DN 137:264511

TI Aqueous crosslinkable polymer composition for coating with good properties

IN Hasegawa, Mitsutaka; Inukai, Hiroshi; Matsuzaki, Hideo; Okazaki, Eiichi

PA Toa Gosei Chemical Industry Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 14 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

KATHLEEN FULLER EIC 1700 REMSON 4B28 571/272-2505

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002284829	A2	20021003	JP 2001-87843	20010326
PRAI	JP 2001-87843		20010326		

AB The active energy ray-curable composition comprises a hydrophilic polymer comprising maleimide, unsatd. ethyleny, and acidic groups (or its salt); a hydrophobic polymer containing maleimide group; and a compound having ≥2 unsatd. ethyleny group. Thus, a UV-curable coating composition was made from a copolymer of 3,4,5,6-tetrahydrophthalimidoethyl acrylate (I), Et acrylate, cyclohexyl methacrylate (II), MMA, and methacrylic acid (III); and a copolymer of I, II, MMA, III, and Bu acrylate.

IC ICM C08F290-12

ICS C08F002-46; C09D004-06; C09D005-00

CC 42-10 (Coatings, Inks, and Related Products)

Section cross-reference(s): 37

ST tetrahydrophthalimidoethyl acrylate copolymer aq coating; active energy ray curable acrylate polymer

IT Coating materials

(UV-curable, water-thinned; aqueous crosslinkable polymer composition for coating with good properties)

IT Polymerization

(emulsion; aqueous crosslinkable polymer composition for coating with good properties)

IT 367954-55-0P 396092-66-3P

RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation) (aqueous crosslinkable polymer composition for coating with good properties)

IT 462109-40-6P 462109-41-7P

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (aqueous crosslinkable polymer composition for coating with good properties)

IT 367954-55-0P 396092-66-3P

RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation) (aqueous crosslinkable polymer composition for coating with good properties)

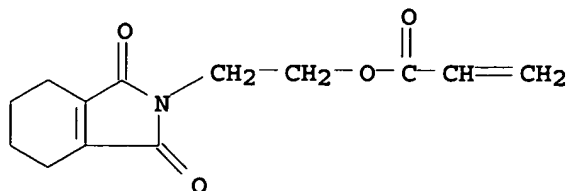
RN 367954-55-0 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with cyclohexyl 2-methyl-2-propenoate, ethyl 2-propenoate, 2-(1,3,4,5,6,7-hexahydro-1,3-dioxo-2H-isoindol-2-yl)ethyl 2-propenoate and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

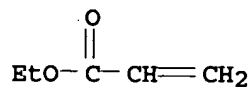
CRN 125350-99-4

CMF C13 H15 N O4



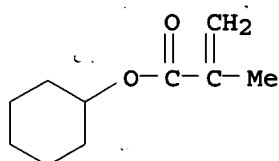
CM 2

CRN 140-88-5
CMF C5 H8 O2



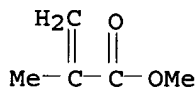
CM 3

CRN 101-43-9
CMF C10 H16 O2



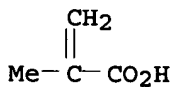
CM 4

CRN 80-62-6
CMF C5 H8 O2



CM 5

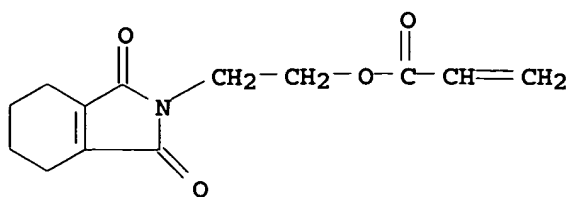
CRN 79-41-4
CMF C4 H6 O2



RN 396092-66-3 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate, cyclohexyl 2-methyl-2-propenoate, 2-(1,3,4,5,6,7-hexahydro-1,3-dioxo-2H-isoindol-2-yl)ethyl 2-propenoate and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

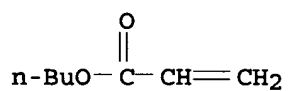
CM 1

CRN 125350-99-4
CMF C13 H15 N O4



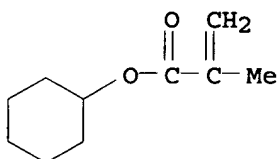
CM 2

CRN 141-32-2
CMF C7 H12 O2



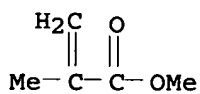
CM 3

CRN 101-43-9
CMF C10 H16 O2



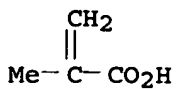
CM 4

CRN 80-62-6
CMF C5 H8 O2



CM 5

CRN 79-41-4
CMF C4 H6 O2



IT 462109-40-6P 462109-41-7P

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(aqueous **crosslinkable** polymer composition for coating with good properties)

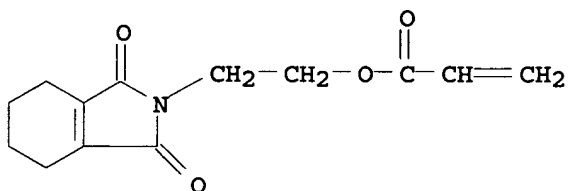
RN 462109-40-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate, cyclohexyl 2-methyl-2-propenoate, [2-ethyl-2-[[2-[(1-oxo-2-propenyl)oxy]ethoxy]methyl]-1,3-propanediyl]bis(oxy-2,1-ethanediyl) di-2-propenoate, ethyl 2-propenoate, 2-(1,3,4,5,6,7-hexahydro-1,3-dioxo-2H-isoindol-2-yl)ethyl 2-propenoate and methyl 2-methyl-2-propenoate (9CI)
(CA INDEX NAME)

CM 1

CRN 125350-99-4

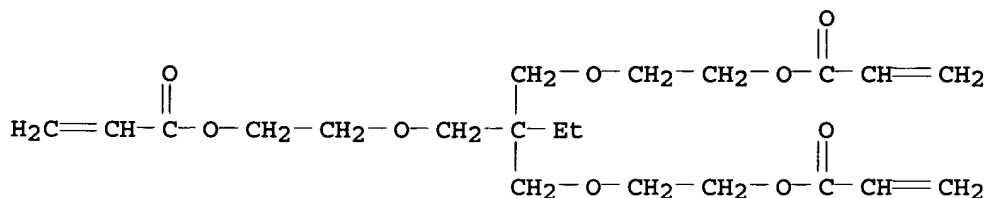
CMF C13 H15 N O4



CM 2

CRN 75577-70-7

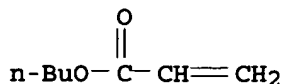
CMF C21 H32 O9



CM 3

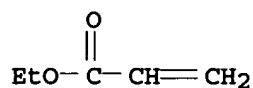
CRN 141-32-2

CMF C7 H12 O2



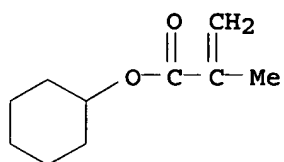
CM 4

CRN 140-88-5
CMF C5 H8 O2



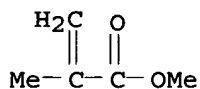
CM 5

CRN 101-43-9
CMF C10 H16 O2



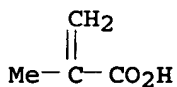
CM 6

CRN 80-62-6
CMF C5 H8 O2



CM 7

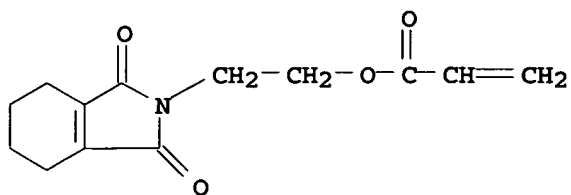
CRN 79-41-4
CMF C4 H6 O2



RN 462109-41-7 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate, cyclohexyl 2-methyl-2-propenoate, ethyl 2-propenoate, 2-(1,3,4,5,6,7-hexahydro-1,3-dioxo-2H-isoindol-2-yl)ethyl 2-propenoate, methyl 2-methyl-2-propenoate and oxybis(2,1-ethanediyl)oxy-2,1-ethanediyl di-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 125350-99-4
CMF C13 H15 N O4

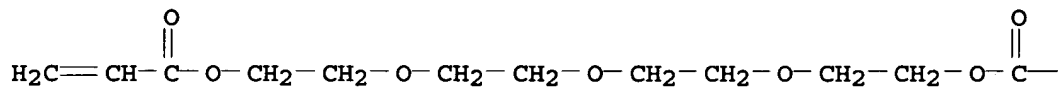


CM 2

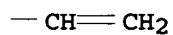
CRN 17831-71-9

CMF C14 H22 O7

PAGE 1-A



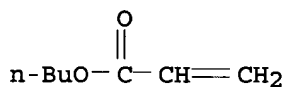
PAGE 1-B



CM 3

CRN 141-32-2

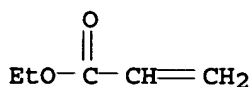
CMF C7 H12 O2



CM 4

CRN 140-88-5

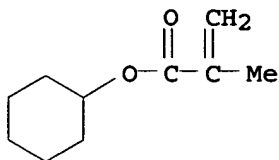
CMF C5 H8 O2



CM 5

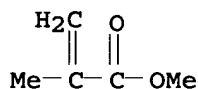
CRN 101-43-9

CMF C10 H16 O2



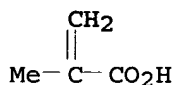
CM 6

CRN 80-62-6
CMF C5 H8 O2



CM 7

CRN 79-41-4
CMF C4 H6 O2



L9 ANSWER 9 OF 25 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 2002:638302 HCAPLUS
DN 137:170343
TI Hydrogels and hydrogel arrays made from polyacrylamide-based reactive
prepolymers crosslinked by [2+2] cycloaddition
IN Beuhler, Allyson; McGowen, John
PA Motorola, Inc., USA
SO U.S. Pat. Appl. Publ., 14 pp., Cont.-in-part of U.S. 6,391,937.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2002115740	A1	20020822	US 2002-131426	20020423
	US 2002035167	A1	20020321	US 1999-344217	19990625
	US 6391937	B2	20020521		
PRAI	US 1998-109821P	P	19981125		
	US 1999-344217	A2	19990625		

AB The title prepolymers (A) comprise a copolymer of a first monomer such as acrylamide, a [2+2] photocyclizable monomer, e.g., N-(6-acryloyloxyhexyl)-2,3-dimethylmaleimide, vinyl cinnamate, etc., and a second monomer selected from acrylic acid, glycidyl methacrylate, methacrylic acid, or mixture thereof, and undergo [2+2] cycloaddn. to be crosslinked upon

exposure to UV light to form a hydrogel. Thus, polymerizing 17.06 g acrylamide and 3.35 g N-(6-acryloyloxyhexyl)-2,3-dimethylmaleimide in the presence of 0.39 g copper(II) sulfate pentahydrate and 0.3 g potassium peroxydisulfate gave an A, a 20% solid content of which was coated on a solid support with 1% photosensitizer (anthroquinone 2-sulfonic acid sodium salt) and exposed with UV radiation to give an array pattern of crosslinked porous hydrogel after removing developer solution

IC ICM C08J003-28

NCL 522152000

CC 37-3 (Plastics Manufacture and Processing)

ST polyacrylamide prepolymer UV photocycloaddn crosslinking hydrogel synthesis

IT Cycloaddition reaction

([2+2], photochem.; synthesis of polyacrylamide-based reactive prepolymers for hydrogels)

IT Crosslinking

(photochem.; synthesis of polyacrylamide-based reactive prepolymers for hydrogels)

IT Hydrogels

(synthesis of polyacrylamide-based reactive prepolymers for hydrogels)

IT 814-68-6DP, Acryloyl chloride, reaction product with acrylic acid-acrylamide copolymer 9003-06-9DP, Acrylic acid-acrylamide copolymer, reaction product with acryloyl chloride 95991-50-7P, Acrylic acid-acrylamide-glycidyl methacrylate copolymer 270088-34-1P

RL: CPS (Chemical process); IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses)

(crosslinked by [2+2] cycloaddn.; synthesis of polyacrylamide-based reactive prepolymers for hydrogels)

IT 4986-89-4, Pentaerythritol tetraacrylate

RL: MOA (Modifier or additive use); USES (Uses)

(crosslinking agent; synthesis of polyacrylamide-based reactive prepolymers for hydrogels)

IT 270088-34-1P

RL: CPS (Chemical process); IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses)

(crosslinked by [2+2] cycloaddn.; synthesis of polyacrylamide-based reactive prepolymers for hydrogels)

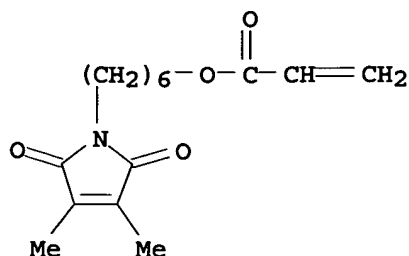
RN 270088-34-1 HCAPLUS

CN 2-Propenoic acid, 6-(2,5-dihydro-3,4-dimethyl-2,5-dioxo-1H-pyrrol-1-yl)hexyl ester, polymer with 2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 139252-82-7

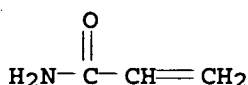
CMF C15 H21 N O4



CM 2

CRN 79-06-1

CMF C3 H5 N O



L9 ANSWER 10 OF 25 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2002:430627 HCAPLUS

DN 137:155267

TI Preparation of thermosensitive nanogels by photo-cross-linking

AU Vo, C. Duan; Kuckling, D.; Adler, H.-J. P.; Schonhoff, M.

CS Institute for Macromolecular Chemistry and Textile Chemistry, Dresden
University of Technology, Dresden, 01062, Germany

SO Colloid and Polymer Science (2002), 280(5), 400-409

CODEN: CPMSB6; ISSN: 0303-402X

PB Springer-Verlag

DT Journal

LA English

AB A method to prepare thermosensitive nanogels from photocross-linkable copolymers of N-isopropylacrylamide and di-Me maleinimido-acrylamide (DMIAAM) was developed. The DMIAAM chromophore was prepared in four steps. The colloidal nanogels were formed by UV irradiation of solns. of thermosensitive polymers in water at 45°. The compns. of the photopolymer solns. were varied by changing the amount of DMIAAM in the photopolymer chains (2-10 mol%) or by varying the sodium dodecyl sulfate (SDS) concentration. The resultant nanogel particles were rather spherical and showed large changes in hydrodynamic diameter in the vicinity of the phase transition temperature of the corresponding linear photopolymers. The particle size of the nanogels and the degree of swelling could be controlled through the UV irradiation time, the chromophore content, and SDS

concentration. An

increase in chromophore content and SDS concentration resulted in nanogels with smaller dimensions. The hydrodynamic diameter of the nanogel particles decreased significantly as the UV irradiation time increased from 2 to 10 min, but no significant changes were observed upon longer irradiation times. The phase transition of photopolymer solns. and nanogels could be adjusted by the chromophore content or the SDS concentration. An increase in the

chromophore

content led to lower phase-transition temperature, while an increase in the SDS concentration caused an increase. Pulsed-field-gradient NMR was used to study the network formation in the nanogels by determining changes in the diffusion

- coeffs.
- CC 35-8 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 36
- ST methylmaleinimido acrylamide chromophore prep'n polymn isopropylacrylamide
nanogel; photocrosslinking isopropylacrylamide methylmaleinimido
acrylamide copolymer network formation; phase transition
isopropylacrylamide methylmaleinimido acrylamide photocrosslinked
copolymer; sodium dodecyl sulfate content nanogel phase transition temp
- IT Diffusion
(diffusion coefficient; preparation of monomer and of thermosensitive
nanogels by
photo-crosslinking of isopropylacrylamide-methylmaleinimidoacrylamide
copolymers and network structure of nanogels)
- IT Hydrogels
(nanogels; preparation of monomer and of thermosensitive nanogels by
photo-crosslinking of isopropylacrylamide-methylmaleinimidoacrylamide
copolymers and network structure of nanogels)
- IT Crosslinking
(photochem.; preparation of monomer and of thermosensitive nanogels by
photo-crosslinking of isopropylacrylamide-methylmaleinimidoacrylamide
copolymers and network structure of nanogels)
- IT Colloids
Heat-sensitive materials
Particle size
Phase transition temperature
Polymer networks
Swelling, physical
(preparation of monomer and of thermosensitive nanogels by
photo-crosslinking of isopropylacrylamide-methylmaleinimidoacrylamide
copolymers and network structure of nanogels)
- IT Polymerization
(radical; preparation of monomer and of thermosensitive nanogels by
photo-crosslinking of isopropylacrylamide-methylmaleinimidoacrylamide
copolymers and network structure of nanogels)
- IT Polymer morphology
(spherical; preparation of monomer and of thermosensitive nanogels by
photo-crosslinking of isopropylacrylamide-methylmaleinimidoacrylamide
copolymers and network structure of nanogels)
- IT 151-21-3, Sodium dodecyl sulfate, uses
RL: NUU (Other use, unclassified); USES (Uses)
(colloid solution agent; preparation of monomer and of thermosensitive
nanogels
by photo-crosslinking of isopropylacrylamide-
methylmaleinimidoacrylamide copolymers and network structure of
nanogels)
- IT 57260-73-8P, tert-Butyl-N-(2-aminoethyl)carbonate 445423-56-3P,
N-[2-(3,4-Dimethyl-2,5-dioxo-2,5-dihydro-pyrrol-1-yl)-aminoethyl]-tert-
butyl carbonate 445423-57-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(intermediate; preparation of monomer and of thermosensitive nanogels by
photo-crosslinking of isopropylacrylamide-methylmaleinimidoacrylamide
copolymers and network structure of nanogels)
- IT 249621-29-2P, N-[2-(3,4-Dimethyl-2,5-dioxo-2,5-dihydro-pyrrol-1-yl)-ethyl]-
acrylamide
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(monomer; preparation of monomer and of thermosensitive nanogels by
photo-crosslinking of isopropylacrylamide-methylmaleinimidoacrylamide
copolymers and network structure of nanogels)

IT 262290-75-5P, N-[2-(3,4-Dimethyl-2,5-dioxo-2,5-dihydro-pyrrol-1-yl)-ethyl]-acrylamide-N-isopropylacrylamide copolymer
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (photo-crosslinked; preparation of monomer and of thermosensitive nanogels by photo-crosslinking of isopropylacrylamide-methylmaleiminidoacrylamide copolymers and network structure of nanogels)

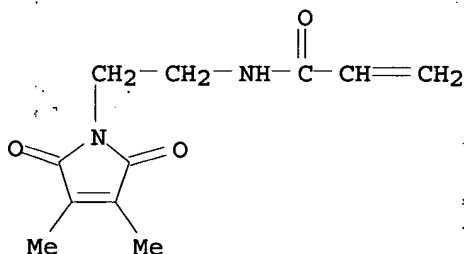
IT 109-89-7, Diethylamine, reactions 121-44-8, Diethylaminoethane, reactions 766-39-2, Dimethyl maleic anhydride 814-68-6, Acryloyl chloride 34619-03-9, Di-tert-butyl carbonate
 RL: RCT (Reactant); RACT (Reactant or reagent) (preparation of monomer and of thermosensitive nanogels by photo-crosslinking of isopropylacrylamide-methylmaleiminidoacrylamide copolymers and network structure of nanogels)

IT 262290-75-5P, N-[2-(3,4-Dimethyl-2,5-dioxo-2,5-dihydro-pyrrol-1-yl)-ethyl]-acrylamide-N-isopropylacrylamide copolymer
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (photo-crosslinked; preparation of monomer and of thermosensitive nanogels by photo-crosslinking of isopropylacrylamide-methylmaleiminidoacrylamide copolymers and network structure of nanogels)

RN 262290-75-5 HCAPLUS
 CN 2-Propenamide, N-[2-(2,5-dihydro-3,4-dimethyl-2,5-dioxo-1H-pyrrol-1-yl)ethyl]-, polymer with N-(1-methylethyl)-2-propenamide (9CI) (CA INDEX NAME)

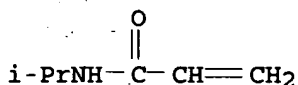
CM 1

CRN 249621-29-2
 CMF C11 H14 N2 O3



CM 2

CRN 2210-25-5
 CMF C6 H11 N O



RE.CNT 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 11 OF 25 HCAPLUS COPYRIGHT 2005 ACS on STN
 AN 2002:427665 HCAPLUS

KATHLEEN FULLER EIC 1700 REMSON 4B28 571/272-2505

DN 137:7577
 TI Water-thinned low-temperature and photocurable resin coating composition
 IN Hasegawa, Mitsutaka; Inukai, Hiroshi; Okazaki, Eiichi; Numa, Nobushige;
 Sugishima, Masami; Nakamura, Koki; Saikawa, Keiichiro; Ishihara, Yushichi
 PA Kansai Paint Co., Ltd., Japan
 SO Eur. Pat. Appl., 35 pp.
 CODEN: EPXXDW
 DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1211293	A2	20020605	EP 2001-127475	20011128
	EP 1211293	A3	20040114		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	JP 2002167517	A2	20020611	JP 2000-364667	20001130
	JP 2003073612	A2	20030312	JP 2001-266931	20010904
	JP 2003073613	A2	20030312	JP 2001-266939	20010904
	JP 2003096387	A2	20030403	JP 2001-293582	20010926
	US 2002128379	A1	20020912	US 2001-996917	20011130
	US 6559231	B2	20030506		
PRAI	JP 2000-364667	A	20001130		
	JP 2001-266931	A	20010904		
	JP 2001-266939	A	20010904		
	JP 2001-293582	A	20010926		

AB The title coating composition contains (a) emulsion copolymer of ethylenically unsatd. monomer containing maleimide groups and monomer containing carbonyl groups, and other monomer, (b) crosslinker containing ≥ 2 functional groups selected from hydrazide, semicarbazide, and hydrazone, optionally, (c) emulsion copolymer having carbonyl and/or waterborne polyurethane having carbonyl or hydrazine groups, and organosilicate compound. Thus, a coating premix based on maleimide acrylate copolymer (preparation given) 100, tripropylene glycol Bu ether 5, thickener 0.5 parts was crosslinked with 0.3 part adipic acid hydrazide agent and applied onto an Al plate and dried at room temperature and 24 h at 10° or exposed to sunlight for 2 h to give a coated plate showing good water resistance and resistance to C stain.

IC ICM C08L101-06
 ICS C08L033-06; C08L075-04; C09D007-12; C09D201-06; C09D133-06; C09D175-04; C08F220-18; C08F002-24

ICI C08F220-18, C08F220-36, C08F220-58, C08F220-06

CC 42-7 (Coatings, Inks, and Related Products)

Section cross-reference(s): 37

ST water weather resistance cold curable coating emulsion copolymer blend; hydrazide crosslinker emulsion copolymer coating; maleimide contg emulsion copolymer dual curable

IT Polyoxyalkylenes, uses

RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (polyurethane derivative, blend with photocurable emulsion copolymer; water-thinned low-temperature and photocurable resin coating composition for various substrates showing water and weather resistance)

IT Coating materials (topcoats; water-thinned low-temperature and photocurable resin coating composition for various substrates showing water and weather resistance)

IT Coating materials (water-resistant, water-thinned; water-thinned low-temperature and photocurable resin coating composition for various substrates showing water and weather resistance)

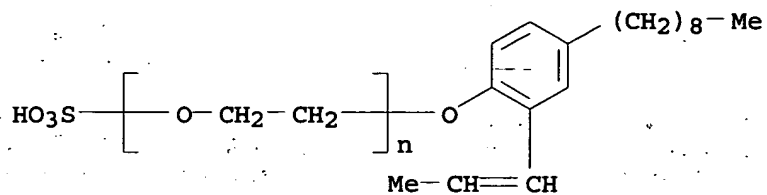
- IT Coating materials
(weather-resistant; water-thinned low-temperature and photocurable resin coating composition for various substrates showing water and weather resistance)
- IT 304856-27-7P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(antistain agent; water-thinned low-temperature and photocurable resin coating composition for various substrates showing water and weather resistance)
- IT 868-77-9DP, 2-Hydroxyethyl methacrylate, polyurethane derivative 2873-97-4DP, Diacetoneacrylamide, polyurethane derivative 4098-71-9DP, IPDI, polyurethane derivative 4767-03-7DP, Dimethylolpropionic acid, polyurethane derivative 24980-41-4DP, Polycaprolactone, diol, polyurethane derivative 25248-42-4DP, Polycaprolactone, diol, polyurethane derivative 25322-69-4DP, Polypropylene glycol, polyurethane derivative 96949-91-6P, Dimethylolpropionic acid-hydrazine-IPDI-polypropylene glycol copolymer 433734-21-5P, Dimethylolpropionic acid-1,6-hexanediol-IPDI-polypropylene glycol-piperazine copolymer
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(blend with photocurable emulsion copolymer; water-thinned low-temperature and photocurable resin coating composition for various substrates showing water and weather resistance)
- IT 433734-22-6P 433734-23-7P 433734-24-8P 433734-25-9P 433734-26-0P 433734-27-1P 433734-28-2P 433734-29-3P 433734-30-6P
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(cured coating; water-thinned low-temperature and photocurable resin coating composition for various substrates showing water and weather resistance)
- IT 433734-19-1P
RL: IMF (Industrial manufacture); RCT (Reactant); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(preparation and **crosslinking**; water-thinned low-temperature and photocurable resin coating composition for various substrates showing water and weather resistance)
- IT 146921-25-7P 433734-20-4P
RL: IMF (Industrial manufacture); RCT (Reactant); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(water-thinned low-temperature and photocurable resin coating composition for various substrates showing water and weather resistance)
- IT 433734-19-1P
RL: IMF (Industrial manufacture); RCT (Reactant); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(preparation and **crosslinking**; water-thinned low-temperature and photocurable resin coating composition for various substrates showing water and weather resistance)
- RN 433734-19-1 HCAPLUS
- CN 2-Propenoic acid, 2-methyl-, polymer with butyl 2-methyl-2-propenoate, butyl 2-propenoate, N-(1,1-dimethyl-3-oxobutyl)-2-propenamide, 2-(1,3,4,5,6,7-hexahydro-1,3-dioxo-2H-isindol-2-yl)ethyl 2-propenoate, methyl 2-methyl-2-propenoate and α -sulfo- ω -[4-nonyl-2-(1-propenyl)phenoxy] [poly(oxy-1,2-ethanediyl)] ammonium salt (9CI) (CA INDEX NAME)

CM 1

CRN 140651-97-4

CMF (C2 H4 O)_n C18 H28 O4 S . H3 N

CCI PMS

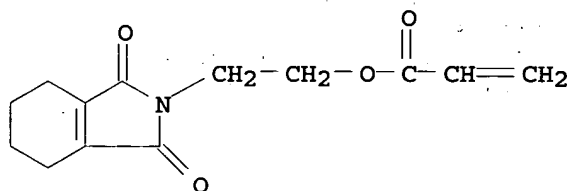


● NH₃

CM 2

CRN 125350-99-4

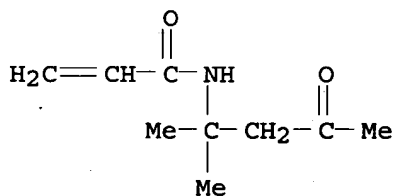
CMF C13 H15 N O4



CM 3

CRN 2873-97-4

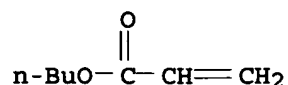
CMF C9 H15 N O2



CM 4

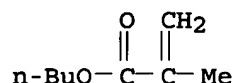
CRN 141-32-2

CMF C7 H12 O2



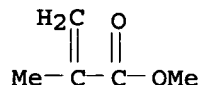
CM 5

CRN 97-88-1
CMF C8 H14 O2



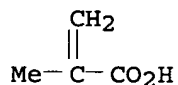
CM 6

CRN 80-62-6
CMF C5 H8 O2



CM 7

CRN 79-41-4
CMF C4 H6 O2



L9 ANSWER 12 OF 25 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 2002:416858 HCAPLUS
DN 137:125454
TI Ultrathin Layers of Polyelectrolytes on Mica: Preparation,
Characterization, and Electrokinetic Surface Potential
AU Sterthaus, R.; Wegner, G.
CS Max-Planck-Institut fur Polymerforschung, Mainz, 55128, Germany
SO Langmuir (2002), 18(14), 5414-5421
CODEN: LANGD5; ISSN: 0743-7463
PB American Chemical Society
DT Journal
LA English
AB We report on the preparation of ultrathin polyelectrolyte network films on solid substrates, particularly on mica. This supramol. construct serves as a useful model of ionogenic surfaces in materials science or biol. contexts. The polyelectrolyte network films were prepared from photo-cross-linkable copolymers which in turn were synthesized from

3-(dimethyl-maleinimidopropyl) methacrylate (DMIMA) and tert-Bu methacrylate (tBMA) via radical copolymer. DMIMA gives rise to photo-cross-linkable sites in the copolymer. Ultrathin multilayered films are prepared with P[tBMA-co-DMIMA] by the Langmuir-Blodgett (LB) technique with mica as the substrate. The mica surface was hydrophobized by a monolayer of cetyltrimethylammonium bromide self-assembled from aqueous solution

Two subsequent reactions were performed with the LB films: crosslinking by irradiation with UV light to fix the morphol. of the film; subsequent acidolysis by gaseous HCl to convert the construct into a polyelectrolyte film. Its thickness was determined by small-angle X-ray reflectometry, and the surface structure by AFM. The electrokinetic potential (zeta potential) at the polyelectrolyte/aqueous solution interface was determined by measuring

the electroosmotic mobility of the solution near the surface. Following the formalism of the Einstein-Smoluchowski equation, a zeta potential of -50 mV was determined at zero concentration of added electrolyte and neutral pH.

CC 35-4 (Chemistry of Synthetic High Polymers)

Section cross-reference(s): 36

ST dimethylmaleinimidopropyl methacrylate copolymer photo crosslinked film electrokinetic potential

IT Hydrolysis

(acid; in preparation and property of ultrathin layers of polyelectrolytes on mica)

IT Films

(multilayer; preparation and property of ultrathin layers of polyelectrolytes on mica)

IT Crosslinking

(photochem.; in preparation and property of ultrathin layers of polyelectrolytes on mica)

IT Monolayers

Polyelectrolytes

Polymer morphology

Surface potential

Surface pressure

Zeta potential

(preparation and property of ultrathin layers of polyelectrolytes on mica)

IT Mica-group minerals, miscellaneous

RL: MSC (Miscellaneous)

(preparation and property of ultrathin layers of polyelectrolytes on mica)

IT 156-87-6, 3-Amino-1-propanol 766-39-2, Dimethylmaleic anhydride

920-46-7, Methacryloyl chloride

RL: RCT (Reactant); RACT (Reactant or reagent)

(in preparation and property of ultrathin layers of polyelectrolytes on mica)

IT 34321-83-0P 63729-56-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(in preparation and property of ultrathin layers of polyelectrolytes on mica)

IT 444155-05-9DP, hydrolyzed product of photo-crosslinked derivative

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)

(preparation and property of ultrathin layers of polyelectrolytes on mica)

IT 444155-05-9DP, hydrolyzed product of photo-crosslinked derivative

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)

(preparation and property of ultrathin layers of polyelectrolytes on mica)

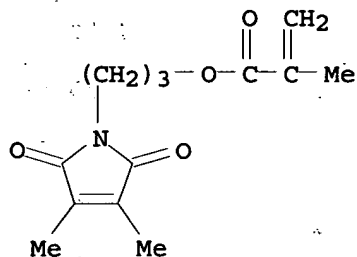
RN 444155-05-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 3-(2,5-dihydro-3,4-dimethyl-2,5-dioxo-1H-

pyrrol-1-yl)propyl ester, polymer with 1,1-dimethylethyl
2-methyl-2-propenoate (9CI) (CA INDEX NAME)

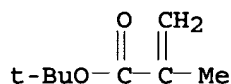
CM 1

CRN 63729-56-6
CMF C13 H17 N O4



CM 2

CRN 585-07-9
CMF C8 H14 O2



RE.CNT 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 13 OF 25 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 2002:329883 HCAPLUS
DN 137:63595
TI Preparation of Nanogels with Temperature-Responsive Core and pH-Responsive Arms by Photo-Cross-Linking
AU Kuckling, Dirk; Vo, Cong Duan; Wohlrab, Sebastian E.
CS Institut fuer Makromolekulare Chemie und Textilchemie, Technische Universitaet Dresden, Dresden, D-01062, Germany
SO Langmuir (2002), 18(11), 4263-4269
CODEN: LANGD5; ISSN: 0743-7463
PB American Chemical Society
DT Journal
LA English
AB The preparation of temperature-responsive colloidal nanogels with a pH-responsive shell was achieved by photocrosslinking of poly(N-isopropylacrylamide) (PNIPAAm) graft terpolymers. The graft terpolymers were prepared from NIPAAm, poly(2-vinylpyridine) (P2VP) macromonomers, and a chromophore monomer based on dimethylmaleimido-acrylamide (DMIAAm). The resulting solns. of nanogel with temperature-responsive core and chemical bounded (P2VP) arms exhibited more stability upon heating and low pH as compared to the corresponding PNIPAAm nanogels. A large transition of the average hydrodynamic diameter of the gels could be observed by increasing either the temperature above 32° or the pH above 5. It is possible to obtain a

response to one stimulus without interfering with the other stimulus. Dynamic light scattering (DLS), SEM, differential scanning calorimetry (DSC), and NMR were used for characterization of the core-shell nanogels.

CC 35-8 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 36

ST isopropylacrylamide vinylpyridine dimethylmaleimidoacrylamide graft copolymer gel prepn; photocrosslinking isopropylacrylamide vinylpyridine dimethylmaleimidoacrylamide gel; hydrodynamic diam response temp pH gel polyacrylamide

IT Polymer morphology
(core-shell; preparation of nanogels with temperature-responsive core and pH-responsive arms by photo-crosslinking of N-isopropylacrylamide-vinylpyridine-dimethylmaleimido-acrylamide chromophore graft copolymers)

IT Polymers, preparation
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(graft; preparation of nanogels with temperature-responsive core and pH-responsive arms by photo-crosslinking of N-isopropylacrylamide-vinylpyridine-dimethylmaleimido-acrylamide chromophore graft copolymers)

IT Polymer chains
(pH-responsive arms; preparation of nanogels with temperature-responsive core and pH-responsive arms by photo-crosslinking of N-isopropylacrylamide-vinylpyridine-dimethylmaleimido-acrylamide chromophore graft copolymers)

IT Crosslinking
(photochem.; preparation of nanogels with temperature-responsive core and pH-responsive arms by photo-crosslinking of N-isopropylacrylamide-vinylpyridine-dimethylmaleimido-acrylamide chromophore graft copolymers)

IT Colloids
Heat-sensitive materials
Hydrogels
Phase transition temperature
(preparation of nanogels with temperature-responsive core and pH-responsive arms by photo-crosslinking of N-isopropylacrylamide-vinylpyridine-dimethylmaleimido-acrylamide chromophore graft copolymers)

IT 262290-75-5P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(photocrosslinked; preparation of nanogels with temperature-responsive core and pH-responsive arms by photo-crosslinking of N-isopropylacrylamide-vinylpyridine-dimethylmaleimido-acrylamide chromophore graft copolymers)

IT 2226-96-2, HOTEMPO
RL: CAT (Catalyst use); USES (Uses)
(preparation of nanogels with temperature-responsive core and pH-responsive arms by photo-crosslinking of N-isopropylacrylamide-vinylpyridine-dimethylmaleimido-acrylamide chromophore graft copolymers)

IT 439590-62-2P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation of nanogels with temperature-responsive core and pH-responsive arms by photo-crosslinking of N-isopropylacrylamide-vinylpyridine-dimethylmaleimido-acrylamide chromophore graft copolymers)

IT 814-68-6D, Acryloyl chloride, reaction products with hydroxy-terminated poly(2-vinylpyridine) 25014-15-7D, Poly(2-vinylpyridine), reaction

products with acryloyl chloride

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of nanogels with temperature-responsive core and pH-responsive arms

by photo-crosslinking of N-isopropylacrylamide-vinylpyridine-dimethylmaleimido-acrylamide chromophore graft copolymers)

IT 94-36-0, Benzoyl peroxide, uses

RL: CAT (Catalyst use); USES (Uses)

(radical initiator; preparation of nanogels with temperature-responsive core and

pH-responsive arms by photo-crosslinking of N-isopropylacrylamide-vinylpyridine-dimethylmaleimido-acrylamide chromophore graft copolymers)

IT 262290-75-5P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)

(photocrosslinked; preparation of nanogels with temperature-responsive core and

pH-responsive arms by photo-crosslinking of

N-isopropylacrylamide-vinylpyridine-dimethylmaleimido-acrylamide chromophore graft copolymers)

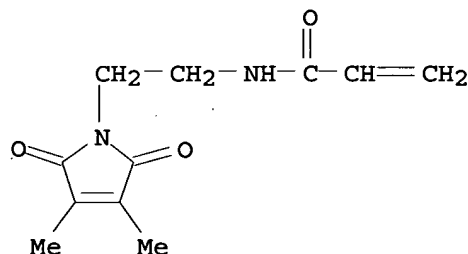
RN 262290-75-5 HCAPLUS

CN 2-Propenamide, N-[2-(2,5-dihydro-3,4-dimethyl-2,5-dioxo-1H-pyrrol-1-yl)ethyl]-, polymer with N-(1-methylethyl)-2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 249621-29-2

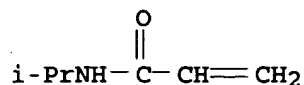
CMF C11 H14 N2 O3



CM 2

CRN 2210-25-5

CMF C6 H11 N O



IT 439590-62-2P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)

(preparation of nanogels with temperature-responsive core and pH-responsive arms

by photo-crosslinking of N-isopropylacrylamide-vinylpyridine-dimethylmaleimido-acrylamide chromophore graft copolymers)

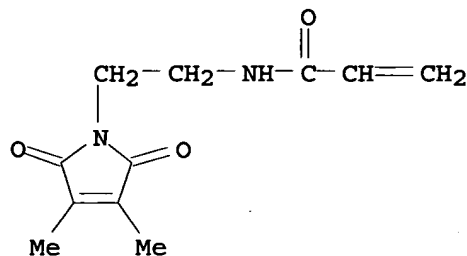
RN 439590-62-2 HCAPLUS

CN 2-Propenamide, N-[2-(2,5-dihydro-3,4-dimethyl-2,5-dioxo-1H-pyrrol-1-yl)ethyl]-, polymer with 2-ethenylpyridine and N-(1-methylethyl)-2-propenamide, graft (9CI) (CA INDEX NAME)

CM 1

CRN 249621-29-2

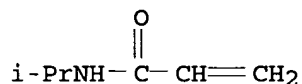
CMF C11 H14 N2 O3



CM 2

CRN 2210-25-5

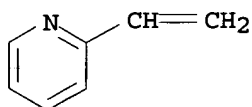
CMF C6 H11 N O



CM 3

CRN 100-69-6

CMF C7 H7 N



RE.CNT 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 14 OF 25 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2002:9983 HCAPLUS

DN 136:71316

TI Crosslinkable resin compositions for coatings for wood

IN Okazaki, Eiichi; Matsuzaki, Hideo; Maeda, Keiji; Mizutani, Kunihiro

PA Toagosei Co., Ltd., Japan

SO Eur. Pat. Appl., 33 pp.

CODEN: EPXXDW

DT Patent

LA English

applicant

KATHLEEN FULLER EIC 1700 REMSON 4B28 571/272-2505

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1167395	A1	20020102	EP 2001-113111	20010529
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 2002003559	A2	20020109	JP 2000-183432	20000619
	JP 2002020638	A2	20020123	JP 2000-202897	20000704
	CN 1330106	A	20020109	CN 2001-121620	20010619
	US 2002028302	A1	20020307	US 2001-883406	20010619
PRAI	JP 2000-183432	A	20000619		
	JP 2000-202897	A	20000704		

AB Crosslinkable resin compns. that are cured easily by irradiation with active energy beams and particularly cured quickly with UV ray are provided, which comprises a polymer containing a maleimido group and an ethylenically unsatd. group. The composition may be an aqueous composition They provide cured films

which are excellent in durability, free from coloring and odors, and also excellent in abrasion resistance, adhesion to substrates, surface smoothness, and chemical resistance.

IC ICM C08F008-30

CC 42-10 (Coatings, Inks, and Related Products)

ST wood coating crosslinkable maleimide polymer

IT Paints

(UV-curable; crosslinkable resin compns. for coatings for wood)

IT Coating materials

Wood

(crosslinkable resin compns. for coatings for wood)

IT 818-61-1DP, reaction products with Bu acrylate-dimethylmaleimidoethyl methacrylate-Me methacrylate-methacryloxyethyl isocyanate copolymer 30674-80-7DP, reaction products with 42978-84-7DP, Hydroxybutylvinyl ether, reaction products with 385387-53-1DP, reaction products with methacryloxyethyl isocyanate 385387-55-3DP, Butyl acrylate-dimethylmaleimidoethyl methacrylate-methyl methacrylate-methacryloxyethyl isocyanate copolymer, reaction products with hydroxyethyl acrylate 385387-57-5DP, reaction products with hydroxybutylvinyl ether 385433-83-0P, Butyl acrylate-methacrylic acid-methyl methacrylate-3,4,5,6-tetrahydrophthalimidoethyl acrylate copolymer ester with glycidyl methacrylate 385433-85-2P, Butyl acrylate-glycidyl methacrylate-methyl methacrylate-3,4,5,6-tetrahydrophthalimidoethyl acrylate copolymer ester with acrylic acid 385433-87-4P, Butyl acrylate-dimethylmaleimidoethyl methacrylate-maleic anhydride-styrene copolymer ester with hydroxyethyl acrylate 385433-88-5P, Butyl acrylate-maleic anhydride-styrene copolymer ester with hydroxyethyl citraconimide and hydroxyethyl acrylate 385433-90-9P, Glycidyl methacrylate-methyl methacrylate copolymer ester with carboxymethyl tetrahydrophthalimide and acrylic acid 385433-92-1P 385433-94-3P 385433-97-6P 385433-99-8P

RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (crosslinkable resin compns. for coatings for wood)

IT 765-12-8, Rapicure DVE 3 29570-58-9, Aronix M 400 75577-70-7, Aronix M 350

RL: TEM (Technical or engineered material use); USES (Uses)

(crosslinkable resin compns. for coatings for wood)

IT 385387-53-1DP, reaction products with methacryloxyethyl isocyanate 385387-55-3DP, Butyl acrylate-dimethylmaleimidoethyl methacrylate-methyl methacrylate-methacryloxyethyl isocyanate copolymer, reaction products with hydroxyethyl acrylate 385387-57-5DP,

reaction products with hydroxybutylvinyl ether 385433-83-0P, Butyl acrylate-methacrylic acid-methyl methacrylate-3,4,5,6-tetrahydrophthalimidoethyl acrylate copolymer ester with glycidyl methacrylate 385433-85-2P, Butyl acrylate-glycidyl methacrylate-methyl methacrylate-3,4,5,6-tetrahydrophthalimidoethyl acrylate copolymer ester with acrylic acid 385433-87-4P, Butyl acrylate-dimethylmaleimidoethyl methacrylate-maleic anhydride-styrene copolymer ester with hydroxyethyl acrylate 385433-88-5P, Butyl acrylate-maleic anhydride-styrene copolymer ester with hydroxyethyl citraconimide and hydroxyethyl acrylate 385433-90-9P, Glycidyl methacrylate-methyl methacrylate copolymer ester with carboxymethyl tetrahydrophthalimide and acrylic acid 385433-92-1P 385433-94-3P 385433-97-6P 385433-99-8P

RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (crosslinkable resin compns. for coatings for wood)

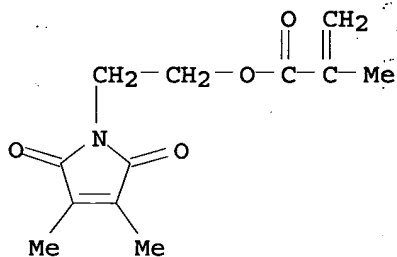
RN 385387-53-1 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(2,5-dihydro-3,4-dimethyl-2,5-dioxo-1H-pyrrol-1-yl)ethyl ester, polymer with butyl 2-propenoate, 2-hydroxyethyl 2-propenoate and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 63729-42-0

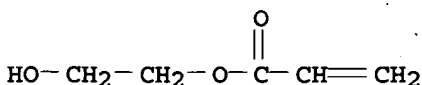
CMF C12 H15 N O4



CM 2

CRN 818-61-1

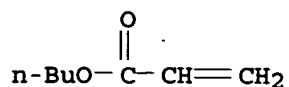
CMF C5 H8 O3



CM 3

CRN 141-32-2

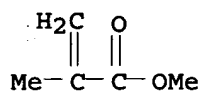
CMF C7 H12 O2



CM 4

CRN 80-62-6

CMF C5 H8 O2



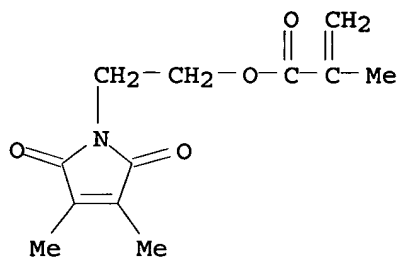
RN 385387-55-3 HCAPLUS

CM 2-Propenoic acid, 2-methyl-, 2-(2,5-dihydro-3,4-dimethyl-2,5-dioxo-1H-pyrrol-1-yl)ethyl ester, polymer with butyl 2-propenoate, 2-isocyanatoethyl 2-methyl-2-propenoate and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 63729-42-0

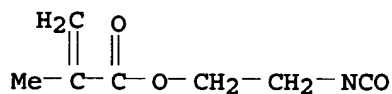
CMF C12 H15 N O4



CM 2

CRN 30674-80-7

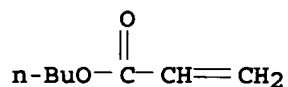
CMF C7 H9 N O3



CM 3

CRN 141-32-2

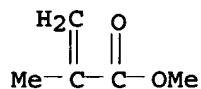
CMF C7 H12 O2



CM 4

CRN 80-62-6

CMF C5 H8 O2



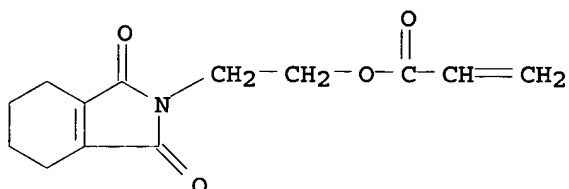
RN 385387-57-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-isocyanatoethyl ester, polymer with 2-(1,3,4,5,6,7-hexahydro-1,3-dioxo-2H-isoindol-2-yl)ethyl 2-propenoate and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 125350-99-4

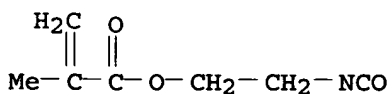
CMF C13 H15 N O4



CM 2

CRN 30674-80-7

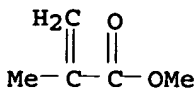
CMF C7 H9 N O3



CM 3

CRN 80-62-6

CMF C5 H8 O2



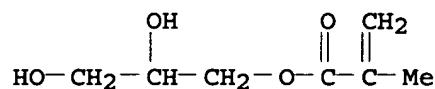
RN 385433-83-0 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with butyl 2-propenoate, 2-(1,3,4,5,6,7-hexahydro-1,3-dioxo-2H-isoindol-2-yl)ethyl 2-propenoate and methyl 2-methyl-2-propenoate, 2-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl ester (9CI) (CA INDEX NAME)

CM 1

CRN 5919-74-4

CMF C7 H12 O4



CM 2

CRN 385433-82-9

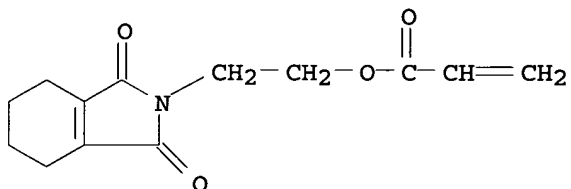
CMF (C13 H15 N O4 . C7 H12 O2 . C5 H8 O2 . C4 H6 O2)x

CCI PMS

CM 3

CRN 125350-99-4

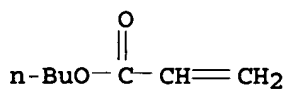
CMF C13 H15 N O4



CM 4

CRN 141-32-2

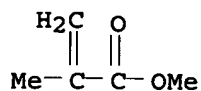
CMF C7 H12 O2



CM 5

CRN 80-62-6

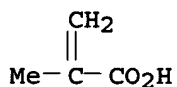
CMF C5 H8 O2



CM 6

CRN 79-41-4

CMF C4 H6 O2



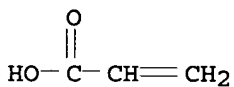
RN 385433-85-2 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with butyl
2-propenoate, 2-(1,3,4,5,6,7-hexahydro-1,3-dioxo-2H-isoindol-2-yl)ethyl
2-propenoate and oxiranylmethyl 2-methyl-2-propenoate, 2-propenoate (9CI)
(CA INDEX NAME)

CM 1

CRN 79-10-7

CMF C3 H4 O2



CM 2

CRN 385433-84-1

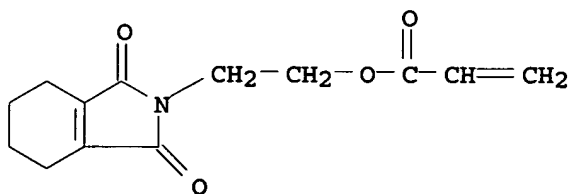
CMF (C13 H15 N O4 . C7 H12 O2 . C7 H10 O3 . C5 H8 O2)x

CCI PMS

CM 3

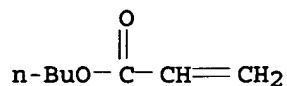
CRN 125350-99-4

CMF C13 H15 N O4



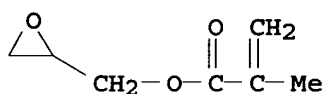
CM 4

CRN 141-32-2
CMF C7 H12 O2



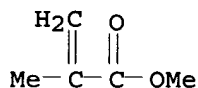
CM 5

CRN 106-91-2
CMF C7 H10 O3



CM 6

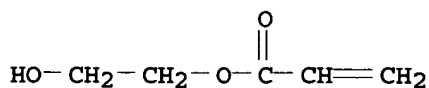
CRN 80-62-6
CMF C5 H8 O2



RN 385433-87-4 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 2-(2,5-dihydro-3,4-dimethyl-2,5-dioxo-1H-pyrrol-1-yl)ethyl ester, polymer with butyl 2-propenoate, ethenylbenzene and 2,5-furandione, 2-(1-oxo-2-propenyl)ethyl ester (9CI) (CA INDEX NAME)

CM 1

CRN 818-61-1
CMF C5 H8 O3

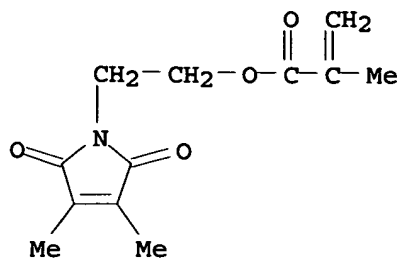


CM 2

CRN 385433-86-3
CMF (C12 H15 N O4 . C8 H8 . C7 H12 O2 . C4 H2 O3)x
CCI PMS

CM 3

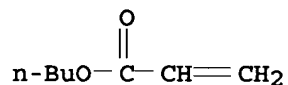
CRN 63729-42-0
CMF C12 H15 N O4



CM 4

CRN 141-32-2

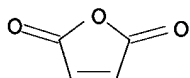
CMF C7 H12 O2



CM 5

CRN 108-31-6

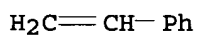
CMF C4 H2 O3



CM 6

CRN 100-42-5

CMF C8 H8



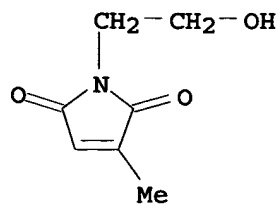
RN 385433-88-5 HCAPLUS

CN 2-Propenoic acid, butyl ester, polymer with ethenylbenzene and
2,5-furandione, 2-(2,5-dihydro-3-methyl-2,5-dioxo-1H-pyrrol-1-yl)ethyl
2-(1-oxo-2-propenyl)ethyl ester (9CI) (CA INDEX NAME)

CM 1

CRN 143659-02-3

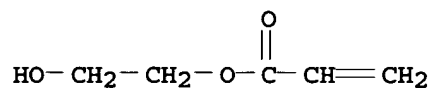
CMF C7 H9 N O3



CM 2

CRN 818-61-1

CMF C5 H8 O3



CM 3

CRN 33593-64-5

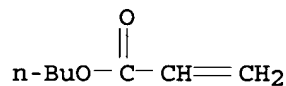
CMF (C8 H8 . C7 H12 O2 . C4 H2 O3) x

CCI PMS

CM 4

CRN 141-32-2

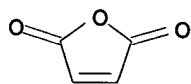
CMF C7 H12 O2



CM 5

CRN 108-31-6

CMF C4 H2 O3

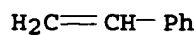


CM 6

CRN 100-42-5

CMF C8 H8

..



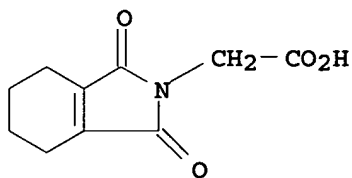
RN 385433-90-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with oxiranylmethyl
2-methyl-2-propenoate, 1,3,4,5,6,7-hexahydro-1,3-dioxo-2H-isoindole-2-
acetate 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 385433-89-6

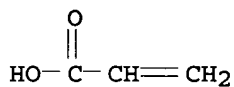
CMF C10 H11 N O4



CM 2

CRN 79-10-7

CMF C3 H4 O2



CM 3

CRN 26141-88-8

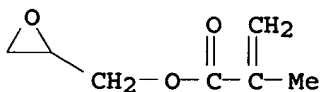
CMF (C7 H10 O3 . C5 H8 O2)x

CCI PMS

CM 4

CRN 106-91-2

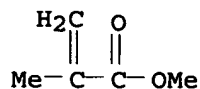
CMF C7 H10 O3



CM 5

CRN 80-62-6

CMF C5 H8 O2

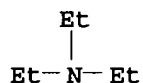


RN 385433-92-1 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-, polymer with ethyl 2-propenoate,
 2-(1,3,4,5,6,7-hexahydro-1,3-dioxo-2H-isoindol-2-yl)ethyl 2-propenoate and
 methyl 2-methyl-2-propenoate, 2-hydroxy-3-[(2-methyl-1-oxo-2-
 propenyl)oxy]propyl ester, compd. with N,N-diethylethanamine (9CI) (CA
 INDEX NAME)

CM 1

CRN 121-44-8

CMF C6 H15 N



CM 2

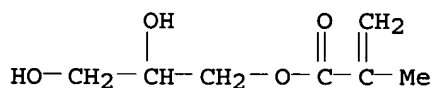
CRN 385433-91-0

CMF (C13 H15 N O4 . C5 H8 O2 . C5 H8 O2 . C4 H6 O2)x . x C7 H12 O4

CM 3

CRN 5919-74-4

CMF C7 H12 O4



CM 4

CRN 367954-54-9

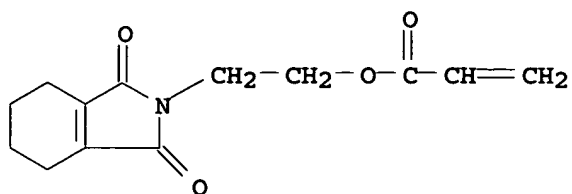
CMF (C13 H15 N O4 . C5 H8 O2 . C5 H8 O2 . C4 H6 O2)x

CCI PMS

CM 5

CRN 125350-99-4

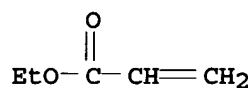
CMF C13 H15 N O4



CM 6

CRN 140-88-5

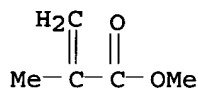
CMF C5 H8 O2



CM 7

CRN 80-62-6

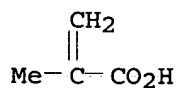
CMF C5 H8 O2



CM 8

CRN 79-41-4

CMF C4 H6 O2



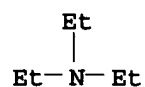
RN 385433-94-3 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with 2-(1,3,4,5,6,7-hexahydro-1,3-dioxo-2H-isoindol-2-yl)ethyl 2-propenoate and methyl 2-methyl-2-propenoate, 2-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl ester, compd. with N,N-diethylethanamine (9CI) (CA INDEX NAME)

CM 1

CRN 121-44-8

CMF C6 H15 N



CM 2

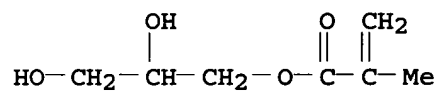
CRN 385433-93-2

CMF (C13 H15 N O4 . C5 H8 O2 . C4 H6 O2)x . x C7 H12 O4

CM 3

CRN 5919-74-4

CMF C7 H12 O4



CM 4

CRN 289712-68-1

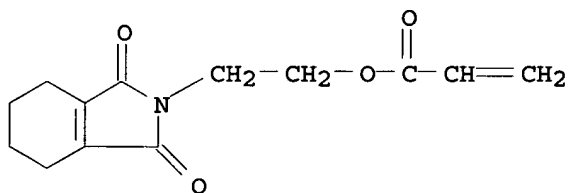
CMF (C13 H15 N O4 . C5 H8 O2 . C4 H6 O2)x

CCI PMS

CM 5

CRN 125350-99-4

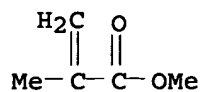
CMF C13 H15 N O4



CM 6

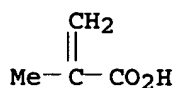
CRN 80-62-6

CMF C5 H8 O2



CM 7

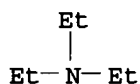
CRN 79-41-4
CMF C4 H6 O2



RN 385433-97-6 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, polymer with cyclohexyl 2-propenoate, 2-(1,3,4,5,6,7-hexahydro-1,3-dioxo-2H-isoindol-2-yl)ethyl 2-propenoate and methyl 2-methyl-2-propenoate, 2-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl ester, compd. with N,N-diethylethanamine (9CI) (CA INDEX NAME)

CM 1

CRN 121-44-8
CMF C6 H15 N

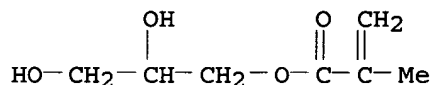


CM 2

CRN 385433-96-5
CMF (C13 H15 N O4 . C9 H14 O2 . C5 H8 O2 . C4 H6 O2)x . x C7 H12 O4

CM 3

CRN 5919-74-4
CMF C7 H12 O4

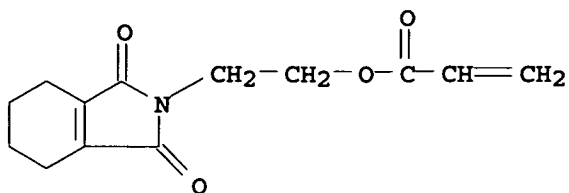


CM 4

CRN 385433-95-4
CMF (C13 H15 N O4 . C9 H14 O2 . C5 H8 O2 . C4 H6 O2)x
CCI PMS

CM 5

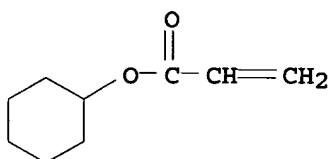
CRN 125350-99-4
CMF C13 H15 N O4



CM 6

CRN 3066-71-5

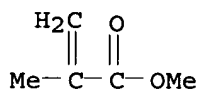
CMF C9 H14 O2



CM 7

CRN 80-62-6

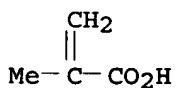
CMF C5 H8 O2



CM 8

CRN 79-41-4

CMF C4 H6 O2



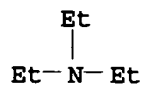
RN 385433-99-8 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with ethyl 2-propenoate, 2-(1,3,4,5,6,7-hexahydro-1,3-dioxo-2H-isoindol-2-yl)ethyl 2-propenoate and methyl 2-methyl-2-propenoate, 2-hydroxy-4(or 5)-[[1-oxo-2-propenyl)oxy]methyl]cyclohexyl ester, compd. with N,N-diethylethanamine (9CI) (CA INDEX NAME)

CM 1

CRN 121-44-8

CMF C6 H15 N



CM 2

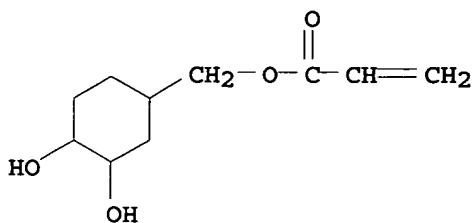
CRN 385433-98-7

CMF (C13 H15 N O4 . C5 H8 O2 . C5 H8 O2 . C4 H6 O2)x . x C10 H16 O4

CM 3

CRN 147321-05-9

CMF C10 H16 O4



CM 4

CRN 367954-54-9

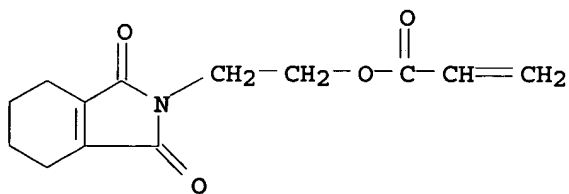
CMF (C13 H15 N O4 . C5 H8 O2 . C5 H8 O2 . C4 H6 O2)x

CCI PMS

CM 5

CRN 125350-99-4

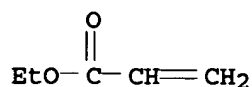
CMF C13 H15 N O4



CM 6

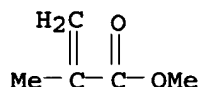
CRN 140-88-5

CMF C5 H8 O2



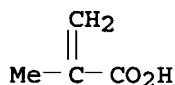
CM 7

CRN 80-62-6
CMF C5 H8 O2



CM 8

CRN 79-41-4
CMF C4 H6 O2



RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 15 OF 25 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2001:760369 HCAPLUS

DN 135:310976

TI Lithographic master plates with good printing durability for direct
platemaking by heat-mode laser exposure

IN Yamazaki, Sumiaki; Kawamura, Koichi

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 42 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001290262	A2	20011019	JP 2000-108061	20000410
PRAI	JP 2000-108061		20000410		

AB The masters possess light-heat-converting layers containing
3-dimensionally-crosslinked hydrophilic polymers that become hydrophobic
upon heating and particulate oxides that include organic light-heat-
converting substances (suitably IR-absorbing dyes). The masters provide
stain-free images.

IC ICM G03F007-00

ICS B41N001-14; G03F007-004

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)

Section cross-reference(s): 38

ST lithog master heat sensitive hydrophilic polymer; crosslinked thermally

responsible polymer lithog master; IR dye including silica gel lithog master

IT Dyes
(IR-absorbing, light-heat-converting layers; lithog. master plates for direct platemaking by heat-mode laser exposure)

IT Laser radiation
(heat-mode; lithog. master plates for direct platemaking by heat-mode laser exposure)

IT Oxides (inorganic), uses
RL: TEM (Technical or engineered material use); USES (Uses)
(light-heat-converting layers; lithog. master plates for direct platemaking by heat-mode laser exposure)

IT Lithographic plates
(masters; lithog. master plates for direct platemaking by heat-mode laser exposure)

IT Silica gel, preparation
RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(particulate, light-heat-converting layers; lithog. master plates for direct platemaking by heat-mode laser exposure)

IT 364605-40-3P 367261-85-6P
RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(crosslinked, light-heat-converting layers; lithog. master plates for direct platemaking by heat-mode laser exposure)

IT 289893-03-4 326794-60-9 367261-81-2 367264-67-3
RL: TEM (Technical or engineered material use); USES (Uses)
(light-heat-converting layers; lithog. master plates for direct platemaking by heat-mode laser exposure)

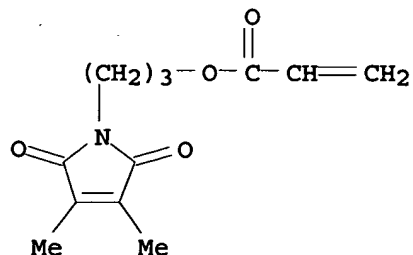
IT 364605-40-3P
RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(crosslinked, light-heat-converting layers; lithog. master plates for direct platemaking by heat-mode laser exposure)

RN 364605-40-3 HCAPLUS

CN Ethanaminium, N,N,N-triethyl-, salt with [[4-[(1-oxo-2-propenyl)amino]phenyl]sulfonyl]acetic acid (1:1), polymer with 3-(2,5-dihydro-3,4-dimethyl-2,5-dioxo-1H-pyrrol-1-yl)propyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 63740-39-6
CMF C12 H15 N O4

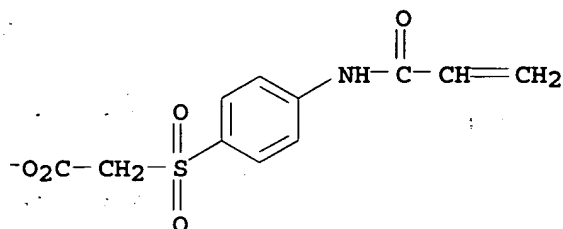


CM 2

CRN 364605-38-9
CMF C11 H10 N O5 S . C8 H20 N

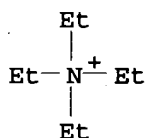
CM 3

CRN 364605-37-8
CMF C11 H10 N O5 S



CM 4

CRN 66-40-0
CMF C8 H20 N



L9 ANSWER 16 OF 25 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 2001:734207 HCAPLUS
DN 135:296197
TI Apparatus and method for lithographic printing
IN Yamazaki, Sumiaki
PA Fuji Photo Film Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 37 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001277465	A2	20011009	JP 2000-99048	20000331
	US 2002100385	A1	20020801	US 2001-820678	20010330
	US 6516722	B2	20030211		
PRAI	JP 2000-99048	A	20000331		

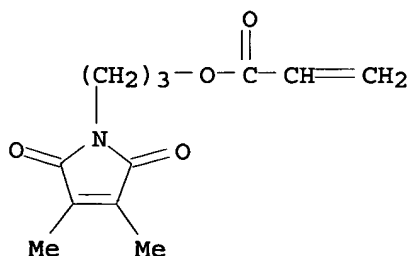
AB In the apparatus, a unit for applying a coating to form an image-forming layer containing a polymer having functional groups crosslinkable by light or heat before image formation and hydrophilic groups changing into hydrophobic groups by heat generated in IR radiation. The method involves the following steps; (1) washing a cylinder of the apparatus for image formation, (2) applying a radiation-sensitive image-forming layer containing a polymer having hydrophilic groups changing into hydrophobic groups by heat on the cylinder, (3) curing the layer, and (4) forming an image pattern comprising a hydrophobic image-receiving region and a hydrophilic

ink-repelling region on the layer corresponding to digital data for printing. This method gives smudge-free images in repeated use.

IC ICM B41C001-055
ICS B41C001-18; B41F007-02; B41F035-02; G03F007-00; G03F007-004
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
ST lithog radiation sensitive polymer hydrophobic ink receptor; hydrophilic radiation sensitive polymer lithog printing; IR sensitive crosslinkable polymer lithog printing
IT IR radiation
Lithographic apparatus
Lithography
(direct lithog. printing using radiation-sensitive polymers for smudge-free images)
IT 324747-78-6 364605-34-5 364605-35-6 364605-36-7 364605-39-0
364605-40-3 364605-41-4 364605-50-5
RL: DEV (Device component use); RCT (Reactant); RACT (Reactant or reagent); USES (Uses)
(crosslinked; direct lithog. printing using radiation-sensitive polymers for smudge-free images)
IT 364605-40-3
RL: DEV (Device component use); RCT (Reactant); RACT (Reactant or reagent); USES (Uses)
(crosslinked; direct lithog. printing using radiation-sensitive polymers for smudge-free images)
RN 364605-40-3 HCAPLUS
CN Ethanaminium, N,N,N-triethyl-, salt with [[4-[(1-oxo-2-propenyl)amino]phenyl]sulfonyl]acetic acid (1:1), polymer with 3-(2,5-dihydro-3,4-dimethyl-2,5-dioxo-1H-pyrrol-1-yl)propyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 63740-39-6
CMF C12 H15 N O4

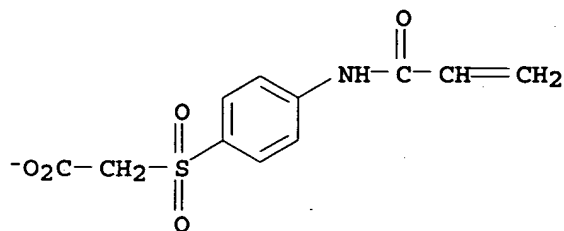


CM 2

CRN 364605-38-9
CMF C11 H10 N O5 S . C8 H20 N

CM 3

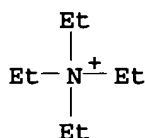
CRN 364605-37-8
CMF C11 H10 N O5 S



CM 4

CRN 66-40-0

CMF C8 H20 N



L9 ANSWER 17 OF 25 HCAPLUS COPYRIGHT 2005 ACS on STN
 AN 2001:100796 HCAPLUS
 DN 134:170840
 TI Lithographic plates for writing by low-energy heat mode exposure
 IN Yamazaki, Sumiaki; Kawamura, Koichi
 PA Fuji Photo Film Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 42 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001033949	A2	20010209	JP 2000-144823	20000517
PRAI	JP 1999-138776	A	19990519		

AB The plate comprises a recording layer containing a 3-dimensionally crosslinked polymer layer having hydrophilic functional groups, which change into hydrophobic groups on irradiation of radiant beam or heat. Preferably, the polymer is a hydrolysis polymerization product of (a) compds. having the hydrophilic functional groups and ≥ 1 group(s) selected from OH, NH₂, NHCOR₃, and Si(OR₄)₃ (R₃₋₄ = alkyl, aryl) and (b) R₅nX₁(OR₆)_{4-n} (R₅₋₆ = alkyl, aryl; X₁ = Si, Al, Ti, Zr; n = 0, 1, 2). The recording layer may also contain photo-thermal conversion substances, e.g. IR absorbers. The polymer may be crosslinked by application of light or heat. Images are formed on the plates by direct writing of digital information.

IC ICM G03F007-00

ICS B41N001-14; G03F007-004; G03F007-075

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38

ST lithog plate head mode exposure writing

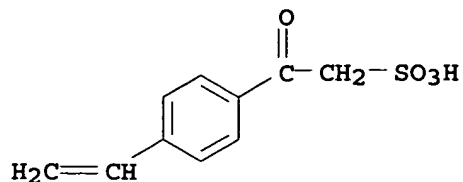
IT Optical materials

(IR absorbers; heat mode exposure direct writing lithog. plates comprising of radiation- or heat-sensitive hydrophilic crosslinked

polymers)
 IT IR materials
 (absorbers; heat mode exposure direct writing lithog. plates comprising
 of radiation- or heat-sensitive hydrophilic crosslinked polymers)
 IT Ceramers
 Lithographic plates
 Photoimaging materials
 (heat mode exposure direct writing lithog. plates comprising of
 radiation- or heat-sensitive hydrophilic crosslinked polymers)
 IT Recording materials
 (thermal; heat mode exposure direct writing lithog. plates comprising
 of radiation- or heat-sensitive hydrophilic crosslinked polymers)
 IT 5496-71-9, IRG 022 22371-56-8, NK 3508
 RL: DEV (Device component use); MOA (Modifier or additive use); USES
 (Uses)
 (IR absorber; heat mode exposure direct writing lithog. plates
 comprising of radiation- or heat-sensitive hydrophilic crosslinked
 polymers)
 IT 324747-69-5P 324747-70-8P 324747-72-0P 324747-74-2P
 324747-75-3P 324747-76-4P 324752-52-5P 324752-53-6P 324752-55-8P
 324752-56-9P 324752-58-1P 324752-61-6P 324752-63-8P 324752-66-1P
 324752-67-2P 324752-68-3P 324752-69-4P
 RL: DEV (Device component use); IMF (Industrial manufacture); PREP
 (Preparation); USES (Uses)
 (heat mode exposure direct writing lithog. plates comprising of
 radiation- or heat-sensitive hydrophilic crosslinked
 polymers)
 IT 324747-67-3P 324747-73-1P
 RL: DEV (Device component use); IMF (Industrial manufacture); PNU
 (Preparation, unclassified); PREP (Preparation); USES (Uses)
 (heat mode exposure direct writing lithog. plates comprising of
 radiation- or heat-sensitive hydrophilic crosslinked
 polymers)
 IT 324747-77-5P
 RL: PNU (Preparation, unclassified); PREP (Preparation)
 (heat mode exposure direct writing lithog. plates comprising of
 radiation- or heat-sensitive hydrophilic crosslinked polymers)
 IT 324747-78-6P
 RL: PNU (Preparation, unclassified); RCT (Reactant); PREP (Preparation);
 RACT (Reactant or reagent)
 (heat mode exposure direct writing lithog. plates comprising of
 radiation- or heat-sensitive hydrophilic crosslinked polymers)
 IT 324747-69-5P
 RL: DEV (Device component use); IMF (Industrial manufacture); PREP
 (Preparation); USES (Uses)
 (heat mode exposure direct writing lithog. plates comprising of
 radiation- or heat-sensitive hydrophilic crosslinked
 polymers)
 RN 324747-69-5 HCAPLUS
 CN 2-Propenoic acid, 3-(2,5-dihydro-3,4-dimethyl-2,5-dioxo-1H-pyrrol-1-
 yl)propyl ester, polymer with 4-ethenyl- β -oxobenzeneethanesulfonic
 acid (9CI) (CA INDEX NAME)

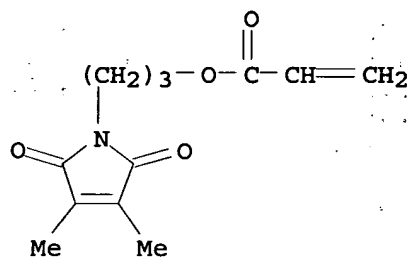
CM 1

CRN 324747-68-4
 CMF C10 H10 O4 S



CM 2

CRN 63740-39-6
CMF C12 H15 N O4



IT 324747-67-3P

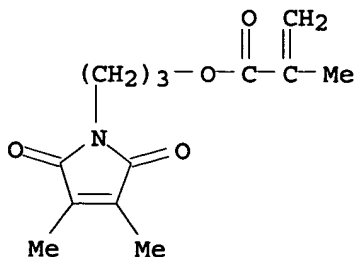
RL: DEV (Device component use); IMF (Industrial manufacture); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)
(heat mode exposure direct writing lithog. plates comprising of radiation- or heat-sensitive hydrophilic crosslinked polymers)

RN 324747-67-3 HCAPLUS

CN Methanaminium, N,N,N-trimethyl-, salt with [[4-[(2-methyl-1-oxo-2-propenyl)amino]phenyl]sulfonyl]acetic acid (1:1), polymer with 3-(2,5-dihydro-3,4-dimethyl-2,5-dioxo-1H-pyrrol-1-yl)propyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 63729-56-6
CMF C13 H17 N O4

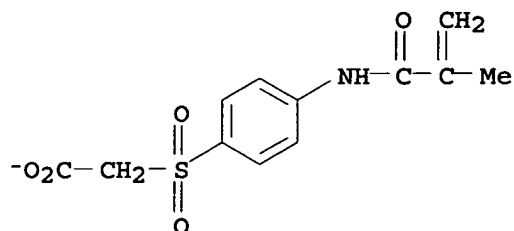


CM 2

CRN 265317-23-5
CMF C12 H12 N O5 S . C4 H12 N

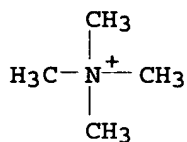
CM 3

CRN 265316-93-6
CMF C12 H12 N O5 S



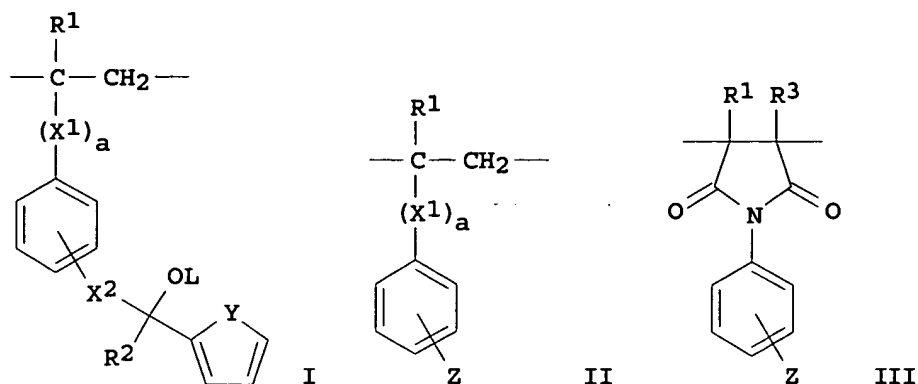
CM 4

CRN 51-92-3
CMF C4 H12 N



L9 ANSWER 18 OF 25 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 1998:217682 HCAPLUS
DN 128:315154
TI Photosensitive composition and presensitized lithographic plate using it
IN Kizu, Noriyuki; Hirai, Katsura
PA Konica Co., Japan
SO Jpn. Kokai Tokkyo Koho, 22 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10090885	A2	19980410	JP 1996-243240	19960913
PRAI	JP 1996-243240		19960913		
GI					



AB Title composition contains a photoacid generator, a sensitizing dye, and a vinyl copolymer having a structural unit I, or II and/or III [R₁, R₃ = H, Me; R₂ = H, C1-6 alkyl; X₁ = CONH, CO₂, O; a = 0, 1; X₂ = (CH₂)_n; n = 1-20; Y = O, S, NR'; R' = H, C1-6 alkyl; L = H, Ac, tert-butoxycarbonyl; Z = R₄OH, R₄OCOR₅, R₄OR₅; R₄, R₅ = C1-6 alkyl]. The composition may contain an acid-crosslinkable compound selected from (alkyl-etherified) melamine-HCHO resins, (alkyl-etherified) benzoguanamine resins, (alkyl-etherified) urea resins, and urethane-aldehyde resins in place of the vinyl copolymer. The presensitized lithog. plate comprises a support having a hydrophilic surface coated with a photosensitive layer made of the above composition. The composition is capable of forming digital images simply by using IR rays and shows high photosensitivity.

IC ICM G03F007-004

ICS G03F007-00; G03F007-039

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38

ST presensitized lithog plate vinyl polymer; crosslinkable melamine resin presensitized lithog plate; benzoguanamine resin presensitized lithog plate; photosensitive urea resin presensitized lithog plate; urethane aldehyde resin presensitized lithog plate

IT Aminoplasts

RL: DEV (Device component use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)

(photosensitive vinyl copolymer or acid-crosslinkable resin composition for presensitized lithog. plate)

IT Lithographic plates

(presensitized; photosensitive vinyl copolymer or acid-crosslinkable resin composition for presensitized lithog. plate)

IT 9003-08-1P, Nikalac MW 30 9011-05-6P, Urea resin 26160-89-4P, Benzoguanamine resin 206133-11-1P 206133-12-2P 206133-13-3P 206133-14-4P 206133-15-5P 206133-16-6P 206133-18-8P 206133-19-9P

RL: DEV (Device component use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)

(photosensitive vinyl copolymer or acid-crosslinkable resin composition for presensitized lithog. plate)

IT 206133-18-8P 206133-19-9P

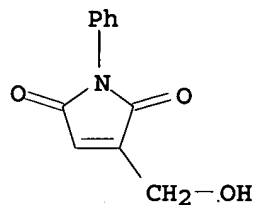
RL: DEV (Device component use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)

(photosensitive vinyl copolymer or acid-crosslinkable resin composition for presensitized lithog. plate)

RN 206133-18-8 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with
 3-(hydroxymethyl)-1-phenyl-1H-pyrrole-2,5-dione and 2-propenenitrile (9CI)
 (CA INDEX NAME)

CM 1

CRN 206133-17-7
 CMF C11 H9 N O3



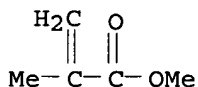
CM 2

CRN 107-13-1
 CMF C3 H3 N



CM 3

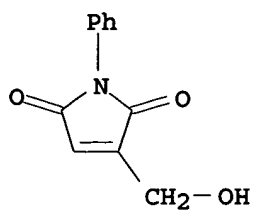
CRN 80-62-6
 CMF C5 H8 O2



RN 206133-19-9 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with 4-ethenylphenol,
 3-(hydroxymethyl)-1-phenyl-1H-pyrrole-2,5-dione and 2-propenenitrile (9CI)
 (CA INDEX NAME)

CM 1

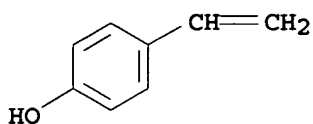
CRN 206133-17-7
 CMF C11 H9 N O3



CM 2

CRN 2628-17-3

CMF C8 H8 O



CM 3

CRN 107-13-1

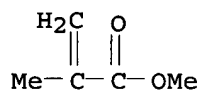
CMF C3 H3 N



CM 4

CRN 80-62-6

CMF C5 H8 O2



L9 ANSWER 19 OF 25 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 1987:577970 HCAPLUS

DN 107:177970

TI Waterproofing of fabrics

PA Ciba-Geigy A.-G., Switz.

SO Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

PATENT NO.

PI	JP 62110982	A2	19870522	JP 1986-262885	19861106
	US 4764395	A	19880816	US 1986-925016	19861030

KATHLEEN FULLER EIC 1700 REMSON 4B28 571/272-2505

FI 8604454	A	19870507	FI 1986-4454	19861031
EP 225280	A1	19870610	EP 1986-810493	19861031
EP 225280	B1	19890419		
R: BE, CH, DE, FR, GB, IT, LI				
NO 8604412	A	19870507	NO 1986-4412	19861105
ZA 8608429	A	19870624	ZA 1986-8429	19861105
PRAI CH 1985-4760	A	19851106		

AB Water-resistant, moisture-permeable fabrics are prepared by coating fabrics with mixts. containing waterproofing agents and crosslinkable polymers and then curing the polymers by exposing the back of the fabrics to irradiation. Thus, a woven fabric of nylon 66 fibers was coated with an aqueous composition containing 10% poly(vinyl alc.) and 3% Oleophobol SY (fluoropolymer) to polymer coating weight 7 g/m². The back of this fabric was then exposed to irradiation for 20 min at 125 W to give a water-resistant fabric with good moisture permeability.

IC ICM D06M015-00

CC 40-5 (Textiles and Fibers)

ST waterproof moisture permeable nylon fabric; fluoropolymer waterproofing agent nylon; polyvinyl alc crosslinked coating nylon

IT Rubber, nitrile, uses and miscellaneous

RL: USES (Uses)

(crosslinked, fluoropolymer waterproof coatings containing, on fabric, for improved moisture permeability)

IT Waterproofing

(of fabrics, by fluoropolymer/crosslinked polymer mixts., with improved moisture permeability)

IT Fluoropolymers

RL: USES (Uses)

(waterproofing agents, for nylon fibers)

IT Polyamide fibers, uses and miscellaneous

RL: USES (Uses)

(waterproofing of, with fluoropolymer/crosslinked polymer mixts., with improved moisture permeability)

IT Coating materials

(water-resistant, fluoropolymer/crosslinked polymer mixts., for nylon fabrics)

IT 868-77-9D, polymers with carboxy group-containing acrylonitrile-butadiene copolymer 9002-89-5, Poly(vinyl alcohol) 9003-18-3D, Acrylonitrile-butadiene copolymer, carboxy group-containing polymer with 2-hydroxyethyl methacrylate 110782-79-1 110782-80-4 110782-81-5 110782-82-6

RL: USES (Uses)

(crosslinked, fluoropolymer waterproof coatings containing, on fabric, for improved moisture permeability)

IT 9003-18-3

RL: USES (Uses)

(rubber, crosslinked, fluoropolymer waterproof coatings containing, on fabric, for improved moisture permeability)

IT 110866-10-9

RL: USES (Uses)

(waterproofing agents, for nylon fibers)

IT 110782-80-4 110782-81-5 110782-82-6

RL: USES (Uses)

(crosslinked, fluoropolymer waterproof coatings containing, on fabric, for improved moisture permeability)

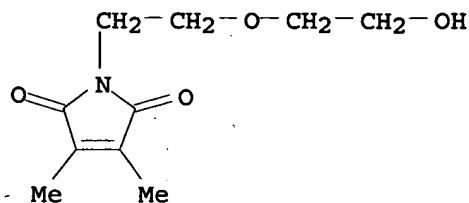
RN 110782-80-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with 1-[2-(2-hydroxyethoxy)ethyl]-3,4-dimethyl-1H-pyrrole-2,5-dione and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 34321-87-4

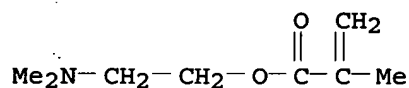
CMF C10 H15 N O4



CM 2

CRN 2867-47-2

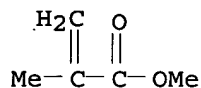
CMF C8 H15 N O2



CM 3

CRN 80-62-6

CMF C5 H8 O2



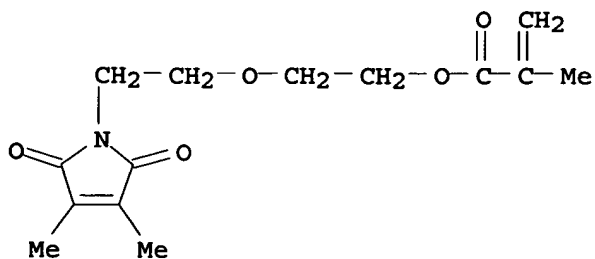
RN 110782-81-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-[2-(2,5-dihydro-3,4-dimethyl-2,5-dioxo-1H-pyrrol-1-yl)ethoxy]ethyl ester, polymer with 2-(dimethylamino)ethyl 2-methyl-2-propenoate and ethyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

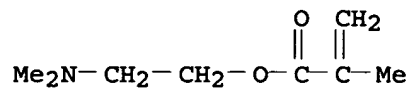
CRN 85419-41-6

CMF C14 H19 N O5



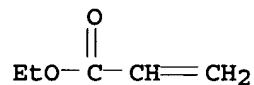
CM 2

CRN 2867-47-2
CMF C8 H15 N O2



CM 3

CRN 140-88-5
CMF C5 H8 O2

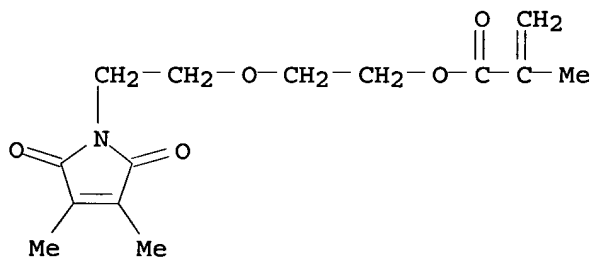


RN 110782-82-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-[2-(2,5-dihydro-3,4-dimethyl-2,5-dioxo-1H-pyrrol-1-yl)ethoxy]ethyl ester, polymer with ethyl 2-propenoate (9CI) (CA INDEX NAME)

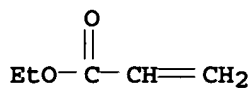
CM 1

CRN 85419-41-6
CMF C14 H19 N O5

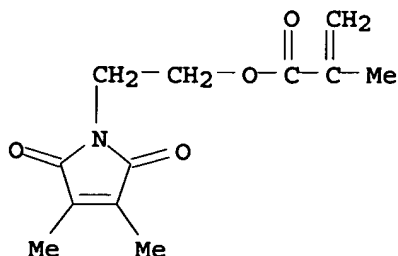


CM 2

CRN 140-88-5
CMF C5 H8 O2



L9 ANSWER 20 OF 25 HCAPLUS COPYRIGHT 2005 ACS on STN
 AN 1985:114466 HCAPLUS
 DN 102:114466
 TI A new class of photopolymers with pendent dimethylmaleimide groups. II. Photocrosslinking of homo- and copolymers of N-(5-methyl-3-oxa-4-oxohexen-5-yl)dimethylmaleimide
 AU Finter, Juergen; Widmer, Eduard; Zweifel, Hans
 CS Cent. Res. Lab., CIBA-GEIGY A.-G., Basel, CH-4002, Switz.
 SO Angewandte Makromolekulare Chemie (1984), 128, 71-97
 CODEN: ANMCBO; ISSN: 0003-3146
 DT Journal
 LA English
 AB The polymerization of N-(2-hydroxyethyl)-2,3-dimethylmaleimide methacrylate (I) gives polymers [63740-32-9] with pendent, light-sensitive groups. I homopolymers with mol. weight 60,000-520,000 and I-Me methacrylate copolymers [95270-83-0] containing 22-94 mol% I were prepared. The copolymers had high photosensitivity (6 mJ/cm² at 365 nm). Exposure energies to for insolubilization of thin films sensitized with thioxanthone [492-22-8] by monochromatic light (365 nm) were determined by the photog. step tablet method for coatings on Cu from the gel point exposure for coatings on transparent quartz. Min. exposure energies were linear functions of mol. weight and copolymer composition. Sensitivity as a function of sensitizer concentration showed a maximum
 CC 37-6 (Plastics Manufacture and Processing)
 ST dimethylmaleimide deriv polymer photocurable; crosslinking photochem maleimide polymer; methacrylate maleimide deriv copolymer; thioxanthone sensitizer photocuring polymer
 IT Crosslinking
 (photochem., of (hydroxyethyl)dimethylmaleimide methacrylate polymers)
 IT 63740-32-9 95270-83-0
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (photochem. crosslinking of, min. exposure energies for)
 IT 492-22-8
 RL: USES (Uses)
 (sensitizer, for photocuring of dimethylmaleimide derivative polymers)
 IT 63740-32-9 95270-83-0
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (photochem. crosslinking of, min. exposure energies for)
 RN 63740-32-9 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-, 2-(2,5-dihydro-3,4-dimethyl-2,5-dioxo-1H-pyrrol-1-yl)ethyl ester, homopolymer (9CI) (CA INDEX NAME)
 CM 1
 CRN 63729-42-0
 CMF C12 H15 N O4

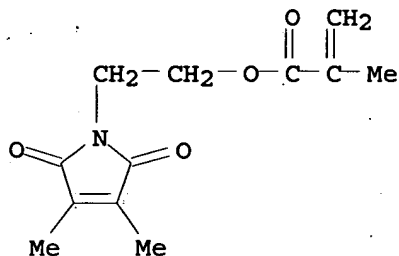


RN 95270-83-0 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-, 2-(2,5-dihydro-3,4-dimethyl-2,5-dioxo-1H-pyrrol-1-yl)ethyl ester, polymer with methyl 2-methyl-2-propenoate (9CI)
 (CA INDEX NAME)

CM 1

CRN 63729-42-0

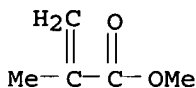
CMF C12 H15 N O4



CM 2

CRN 80-62-6

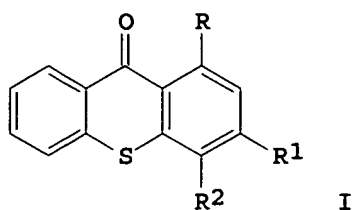
CMF C5 H8 O2



L9 ANSWER 21 OF 25 HCAPLUS COPYRIGHT 2005 ACS on STN
 AN 1984:572396 HCAPLUS
 DN 101:172396
 TI Xanthen-9-ones and thioxanthen-9-ones
 IN Fischer, Walter; Finter, Juergen; Zweifel, Hans
 PA Ciba-Geigy A.-G. , Switz.
 SO Eur. Pat. Appl., 43 pp.
 CODEN: EPXXDW
 DT Patent
 LA German
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 110832	A1	19840613	EP 1983-810541	19831121
	EP 110832	B1	19891227		
	R: CH, DE, FR, GB, LI, NL				
	US 4585876	A	19860429	US 1983-551768	19831114
	CA 1206477	A1	19860624	CA 1983-441728	19831123
	JP 59108777	A2	19840623	JP 1983-220848	19831125
	JP 07064839	B4	19950712		
	US 4681950	A	19870721	US 1985-812554	19851223
PRAI	CH 1982-6872	A	19821125		
	US 1983-551768	A3	19831114		

GI

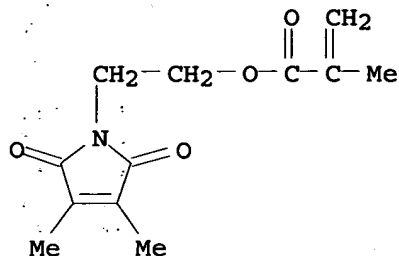


- AB Photosensitizers for crosslinking of diene- and epoxy resin-containing acrylic polymers and resins are xanthone-3,4-dicarboxylic acid N-methylimide [92461-62-6] and thioxanthone derivs. (I), which are prepared by acid-catalyzed cyclocondensation of the corresponding 3- or 4-(2-carboxyphenylthio)phthalic acid derivs. Usually, I consists of 3,4-dicarboxylic acid imides or esters [e.g., R1R2 = CO(NR3)CO (R3 = alkyl, branched alkyl, dialkylaminoalkyl); R1R2 = CO(O)CO; R1 = R2 = CO2Me, CO2Et, or CO2Bu], in which R = H, NO2, NH2, SPh, SC10H21, or OH. Anhydride or imide rings can also be fused to the 1,2 or 2,3 positions.
- IC C07D311-86; C07D335-16; C07C121-75; C07C149-40; C07D209-48
- CC 37-6 (Plastics Manufacture and Processing)
Section cross-reference(s): 27, 74
- ST photosensitizer thioxanthone acrylic polymer crosslinking; epoxy acrylic polymer crosslinking photosensitizer; cyclocondensation phenylthiophthalic acid thioxanthone
- IT Acrylic polymers, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(epoxy resin-containing, crosslinking of, thioxanthone photosensitizers for)
- IT Crosslinking catalysts
(photochem., thioxanthone derivs., for acrylic polymers)
- IT 71868-10-5
RL: MOA (Modifier or additive use); USES (Uses)
(crosslinking agents, thioxanthone photosensitizers for, for acrylic polymers)
- IT 77090-37-0 92281-75-9 92281-76-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(crosslinking of, thioxanthone photosensitizers for)
- IT 81118-38-9P 81118-39-0P 81118-40-3P 92461-32-0P 92461-34-2P
92461-50-2P 92461-51-3P 92461-60-4P 92461-64-8P 92461-69-3P
92461-70-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and cyclization of)
- IT 92461-65-9P 92461-66-0P 92461-67-1P 92461-68-2P 92601-70-2P
RL: PREP (Preparation)
(preparation of, as photosensitizer for polymer crosslinking)
- IT 92461-33-1P 92461-35-3P 92461-36-4P 92461-37-5P 92461-38-6P
92461-39-7P 92461-40-0P 92461-41-1P 92461-42-2P 92461-43-3P
92461-44-4P 92461-45-5P 92461-46-6P 92461-47-7P 92461-48-8P
92461-49-9P 92461-52-4P 92461-53-5P 92461-54-6P 92461-55-7P
92461-56-8P 92461-57-9P 92461-58-0P 92461-59-1P 92461-61-5P
92461-62-6P 92461-63-7P 92461-71-7P 92483-67-5P 92483-68-6P
92483-69-7P
RL: PREP (Preparation)
(preparation of, as photosensitizer in polymer crosslinking)
- IT 77090-37-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(crosslinking of, thioxanthone photosensitizers for)

RN 77090-37-0 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-, 2-(2,5-dihydro-3,4-dimethyl-2,5-dioxo-1H-pyrrol-1-yl)ethyl ester, polymer with ethyl 2-propenoate (9CI) (CA INDEX NAME)

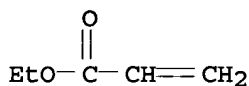
CM 1

CRN 63729-42-0
 CMF C12 H15 N O4



CM 2

CRN 140-88-5
 CMF C5 H8 O2

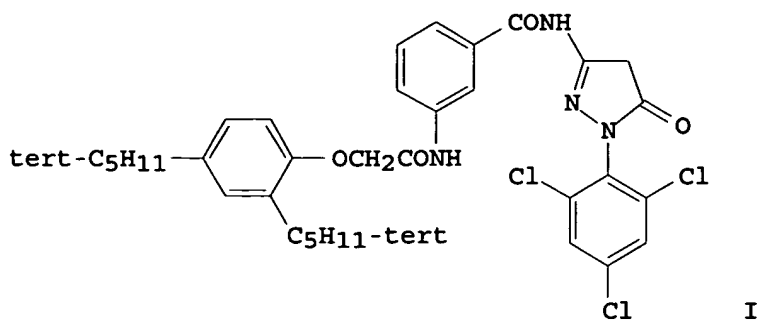


L9 ANSWER 22 OF 25 HCAPLUS COPYRIGHT 2005 ACS on STN
 AN 1984:200864 HCAPLUS
 DN 100:200864
 TI Photographic materials
 IN Webb, Terence Charles; Lovell, Peter Alfred; Kingston, Samuel Barry
 PA Ciba-Geigy A.-G. , Switz.
 SO Eur. Pat. Appl., 41 pp.
 CODEN: EPXXDW

DT Patent
 LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 99861	A2	19840201	EP 1983-810325	19830718
	EP 99861	A3	19840606		
	EP 99861	B1	19870527		
	R: BE, CH, DE, FR, GB, IT, LI				
	US 4490461	A	19841225	US 1983-512823	19830711
	JP 59038737	A2	19840302	JP 1983-132998	19830722
PRAI	GB 1982-21360	A	19820723		
GI					



AB A method is described of incorporation into a photog. layers of a photog. useful compound (developing agents, antifoggants, color couplers etc.) having small mol. weight. The method comprises preparation of crosslinked polymeric particles in which the photog. compound is occluded, and further dispersing the particles into an aqueous gelatin coating layer. Thus, a 36.3 g of a copolymer of Me methacrylate (85 weight parts) and methacrylic acid (15 weight parts) was prepared by solution polymerization, dissolved with 36.3

g of hexamethylol melamine hexamethyl ether in 72.6 mL of EtOH with stirring under N. I (36.3 g) was added to the polymer solution and the mixture was heated to 60° to achieve complete dissoln.; after removing the solvent (at 80°), the mixture was ground to particle size 5-50 μ. An aqueous medium containing 10 weight % of the above particles and 1 weight%

of gelatin was ball milled to provide particle dispersion having particle size of 0.3 μ and a polydispersity of 3-4. A cellulose triacetate support was coated with a composition containing gelatin 41, Ag(Br,I) 40 (Ag), and the dispersion of particles containing I 24 mg/dm², overcoated with a protective gelatin layer, imagewise exposed, and processed to give an image with d. 1.45.

IC G03C001-06; G03C007-26

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST polymer dispersion additive photog emulsion

IT Photographic emulsions

(incorporation of additives into, occlusion into solid crosslinked polymer particles for)

IT Acrylic polymers, uses and miscellaneous

RL: USES (Uses)

(cyano-containing, in preparation of crosslinked particles of additives for photog. materials)

IT 9003-70-7 26471-62-5D, polymers 77945-60-9 89613-31-0

RL: USES (Uses)

(in preparation of crosslinked particles of additives for photog. materials)

IT 91-44-1P 92-43-3P 123-31-9P, preparation 7128-64-5P 31188-91-7P 33090-14-1P 66210-62-6P

RL: PREP (Preparation)

(occluded into solid crosslinked polymer particles, preparation of, for incorporation into photog. emulsions)

IT 9003-08-1DP, reaction product with Me methacrylate-methacrylic acid polymer 9004-36-8DP, reaction product with Me methacrylate-methacrylic acid polymer and formaldehyde-melamine polymer 9011-05-6DP, reaction product with Me methacrylate-methacrylic acid polymer 25086-15-1DP, reaction products with aminoplast resins 26588-79-4DP, reaction product

with formaldehyde-melamine polymer 26655-24-3DP, reaction product with formaldehyde-melamine polymer 26970-44-5DP, reaction product with formaldehyde-melamine polymer

RL: PREP (Preparation)

(preparation of particles of, with occluded photog. useful additive, for preparation of photog. materials)

IT 77945-60-9

RL: USES (Uses)

(in preparation of **crosslinked** particles of additives for photog. materials)

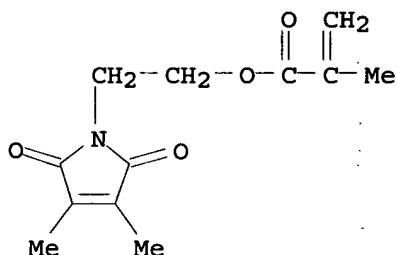
RN 77945-60-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with 2-(2,5-dihydro-3,4-dimethyl-2,5-dioxo-1H-pyrrol-1-yl)ethyl 2-methyl-2-propenoate and ethyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 63729-42-0

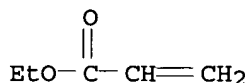
CMF C12 H15 N O4



CM 2

CRN 140-88-5

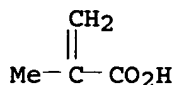
CMF C5 H8 O2



CM 3

CRN 79-41-4

CMF C4 H6 O2



L9 ANSWER 23 OF 25 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 1982:143533 HCAPLUS

DN 96:143533

KATHLEEN FULLER EIC 1700 REMSON 4B28 571/272-2505

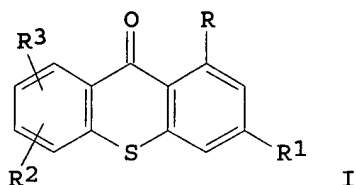
TI Thioxanthonecarboxylic acids and derivatives useful in photopolymerization and photocrosslinking reaction
 IN Fischer, Walter; Kvita, Vratislav; Zweifel, Hans; Felder, Louis
 PA Ciba-Geigy A.-G., Switz.
 SO Fr. Demande, 58 pp.
 CODEN: FRXXBL

DT Patent
 LA French

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	FR 2482102	A1	19811113	FR 1981-8981	19810506
	FR 2482102	B1	19840113		
	CH 643552	A	19840615	CH 1980-3519	19800506
	JP 57002283	A2	19820107	JP 1981-63527	19810428
	JP 02038594	B4	19900831		
	US 4385182	A	19830524	US 1981-258267	19810428
	DE 3117568	A1	19820616	DE 1981-3117568	19810504
	DE 3117568	C2	19891207		
	CA 1166635	A1	19840501	CA 1981-376813	19810504
	GB 2075506	A	19811118	GB 1981-13651	19810505
	GB 2075506	B2	19840208		
PRAI	CH 1980-3519	A	19800506		

GI



AB Thirty-three thioxanthone derivs. I are prepared in which R is CO₂H, CO₂Bu, CONHBu, CN, or a similar group, R₁ is NO₂, Cl, NH₂, MeO, p-ClC₆H₄S, CMe₂NO₂, CH₂CO₂H, SO₂Me, azido, 4,5-bis(methoxycarbonyl)-1,2,3-triazol-1-yl, CH(CN)CO₂Me, SCH₂CH₂OH, or a similar group, R₂ is H or Cl, and R₃ is H, Me, MeO, or Cl. The I are useful as initiators for the photopolymn. and photo crosslinking of a 2-(dimethylmaleimido)ethyl methacrylate-Et acrylate copolymer [77090-37-0], mixts. of an acrylic resin and triacrylate monomers, and similar compns. as photoresists, coatings, etc. In some cases, mixts. of the I and an amine are used as photoinitiators. Thus, 12.7 g 3-(p-methylphenylthio)-5-nitrophthalic anhydride [81116-61-2], 16.1 g AlCl₃, and 120 mL Cl₂CHCHCl₂ were heated at 120°, cooled, evaporated, and treated with dilute HCl to prepare 7.37 g 1-carboxy-7-methyl-3-nitrothioxanthone [81116-25-8].

IC C07D335-16; C08F002-50; C08F010-02

CC 35-3 (Chemistry of Synthetic High Polymers)

Section cross-reference(s): 27, 74

ST thioxanthonecarboxylic prepn photopolymn catalyst; carboxythioxanthone prepn photopolymn catalyst; nitrocarboxythioxanthone prepn photopolymn catalyst; xanthone carboxythia prepn photoinitiator; polymn photochem catalyst thioxanthone; crosslinking photochem catalyst thioxanthone; photopolymn catalyst thioxanthone

IT Heterocyclic compounds

Nitro compounds

RL: PREP (Preparation)

(thioxanthone derivs., preparation and catalysis of photopolymns. by)

IT Carboxylic acids, preparation
 RL: PREP (Preparation)
 (thioxanthone-, preparation and catalysis of photopolymns. by)

IT Esters, preparation
 RL: PREP (Preparation)
 (thioxanthonecarboxylates, preparation and catalysis of photopolymn. by)

IT Crosslinking catalysts
 Polymerization catalysts
 (photochem., carboxythioxanthone derivs., for ethylenically unsatd. compds.)

IT 111-92-2
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (amidation by, of methoxynitrothioxanthonecarboxylic acid)

IT 105-59-9
 RL: CAT (Catalyst use); USES (Uses)
 (catalysts, containing carboxythioxanthone derivs., for photopolymns.)

IT 77108-02-2
 RL: USES (Uses)
 (coatings containing, photocrosslinking of, catalysts for)

IT 15625-89-5
 RL: USES (Uses)
 (photocrosslinking of acrylic resins containing, catalysts for)

IT 77090-37-0
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (photocrosslinking of, catalysts for)

IT 81116-54-3P 81116-55-4P 81116-56-5P
 RL: RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
 (preparation and catalysis of photopolymn. by)

IT 81116-24-7P 81116-25-8P 81116-26-9P 81116-27-0P 81116-28-1P
 81116-29-2P 81116-30-5P 81116-31-6P 81116-32-7P 81116-33-8P
 81116-34-9P 81116-35-0P 81116-36-1P 81116-37-2P 81116-38-3P
 81116-39-4P 81116-40-7P 81116-41-8P 81116-42-9P 81116-43-0P
 81116-44-1P 81116-45-2P 81116-46-3P 81116-47-4P 81116-48-5P
 81116-49-6P 81116-50-9P 81116-51-0P 81116-52-1P 81116-53-2P
 RL: PREP (Preparation)
 (preparation and catalysis of photopolymns. by)

IT 81116-57-6P 81116-61-2P 81116-62-3P 81116-63-4P
 RL: RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
 (preparation and cyclization of)

IT 81116-60-1P
 RL: RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
 (preparation and hydrolysis of)

IT 81116-59-8P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation and reaction with thiophenol)

IT 81116-58-7P
 RL: RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
 (preparation, hydrolysis, and cyclization of)

IT 108-98-5, reactions
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with (dinitrophthalimido)toluene)

IT 762-42-5
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with Et azidothioxanthonecarboxylate)

IT 609-08-5 873-55-2 19296-18-5 20277-69-4
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with Et nitrothioxanthonecarboxylate)

IT 79-46-9 105-34-0 106-54-7 108-59-8

RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with Me nitrothiaxanthonecarboxylate)
 IT 60-24-2
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with carboxynitrothiaxanthone)
 IT 81116-64-5
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with dichlorothiophenol)
 IT 106-45-6
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with dinitrophthalic acid)
 IT 106-49-0, reactions 696-63-9
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with dinitrophthalic anhydride)
 IT 5858-17-3
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with dinitrophthalimidomethane)
 IT 4277-02-5
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with thiocresol)
 IT 52806-20-9
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with toluidine)

L9 ANSWER 24 OF 25 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 1982:8268 HCAPLUS

DN 96:8268

TI Esters, thioesters and amides of thioxanthone carboxylic acid and their use as sensitizers or photo-initiators and polymers

IN Kvita, Vratislav; Zweifel, Hans; Roth, Martin; Felder, Louis

PA Ciba-Geigy A.-G., Switz.

SO Eur. Pat. Appl., 55 pp.

CODEN: EPXXDW

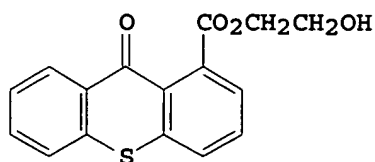
DT Patent

LA German

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 33720	A1	19810812	EP 1981-810025	19810130
	EP 33720	B1	19840307		
	R: CH, DE, FR, GB, NL				
	US 4348530	A	19820907	US 1981-228533	19810126
	JP 56125383	A2	19811001	JP 1981-14495	19810204
	JP 02046586	B4	19901016		
	US 4594400	A	19860610	US 1984-652683	19840919
PRAI	CH 1980-917	A	19800205		
	US 1981-228533	A3	19810126		
	US 1982-373572	A1	19820430		

GI



I

AB Thioxanthonecarboxylic acid derivs. containing functional groups, e.g. OH, unsatn., or oxiranyl, are prepared and used, optionally in the form of polymers, as photosensitizers or reacted with polymers to give photocurable products. Thus, Na 1-thioxanthonecarboxylate [79915-81-4] 18.4, 2-chloroethanol [107-07-3] 14.5, and Et₂NH 0.18 g were refluxed 4 h at 130°, giving after purification 13.2 g 2-hydroxyethyl 1-thioxanthonecarboxylate (I) [79915-82-5]. A coating composition was prepared by milling Plex 6631 (acrylic resin) 1.89, 2-hydroxypropyl acrylate 0.52, TiO₂ 2.40, N-methyldiethanolamine 0.13, hexanediol diacrylate 1.29, and I 0.03 g and coated at a thickness of 40 μ on a glass plate. The coating required 4 passes by an 80 W/cm UV lamp at a distance of 11 cm and speed 50 m/min to give a wiping-resistant surface, and, after 10 passes, had pendulum hardness 142, 60° gloss 81, and yellowness index 0.

IC C07D335-16; C08F028-06; C08G063-18; C08G069-42; C08F002-50; G03C001-68

CC 42-10 (Coatings, Inks, and Related Products)

Section cross-reference(s): 24, 74

ST thioxanthonecarboxylate photosensitizer acrylic coating

IT Ring closure and formation
(of phenylthiophthalic acid)

IT Polymerization
(of unsatd. thioxanthonecarboxylic acid derivs.)

IT Crosslinking catalysts
(photochem., thioxanthonecarboxylic acid derivs. and polymers, for unsatd. coating compns.)

IT Coating materials
(photocurable, containing thioxanthonecarboxylic acid derivs. and polymers as sensitizers)

IT 79934-26-2
RL: TEM (Technical or engineered material use); USES (Uses)
(coatings, photocurable, thioxanthonecarboxylate sensitizers for)

IT 77090-37-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(crosslinking of, photochem., poly(vinyl thioxanthonecarboxylate) sensitizer for)

IT 112-27-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(esterification of, with methylthioxanthonecarboxylic chloride)

IT 79934-25-1
RL: USES (Uses)
(photosensitizers, for crosslinking of unsatd. polymer coatings)

IT 51762-69-7P
RL: RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(preparation and amidization and esterification of)

IT 51762-85-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and cyclization of)

IT 68621-19-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and cyclocondensation of)

IT 51763-07-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and esterification of)

IT 58045-34-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and hydrolysis of)

IT 9006-26-2DP, reaction products with aminoethyl thioxanthonecarboxylate
 79915-90-5DP, reaction products with ethylene-maleic anhydride copolymer
 79934-28-4P 79934-29-5P 79956-43-7P 79956-44-8P 79956-58-4P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)

IT 79915-82-5P 79915-83-6P 79915-84-7P 79915-85-8P 79915-86-9P
 79915-87-0P 79915-88-1P 79915-89-2P 79915-91-6P 79923-63-0P
 RL: PREP (Preparation)
 (preparation of, as photosensitizer)

IT 79934-27-3P
 RL: PREP (Preparation)
 (preparation of, as photosensitizer for unsatd. coating materials)

IT 77084-30-1
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with alcs. and amines)

IT 79915-81-4
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with chloroethanol)

IT 108-98-5, reactions
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with nitrophthalimides)

IT 106-45-6
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with nitroterephthalates)

IT 107-07-3, reactions
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with sodium thioxanthonecarboxylate)

IT 5292-45-5
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with thiocresol)

IT 19065-85-1
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with thiophenol)

IT 106-89-8, reactions 110-75-8
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with thioxanthonecarboxylic acid salts)

IT 107-21-1, reactions 111-46-6, reactions 141-43-5, reactions 503-66-2
 868-77-9
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with thioxanthonecarboxylic chloride)

IT 108-05-4, reactions
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (transesterification of, with thioxanthonecarboxylic acid)

IT 77090-37-0
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (crosslinking of, photochem., poly(vinyl
 thioxanthonecarboxylate) sensitizer for)

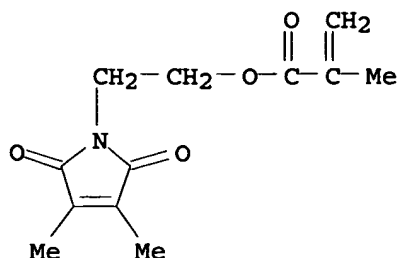
RN 77090-37-0 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(2,5-dihydro-3,4-dimethyl-2,5-dioxo-1H-
 pyrrol-1-yl)ethyl ester, polymer with ethyl 2-propenoate (9CI) (CA INDEX
 NAME)

CM 1

CRN 63729-42-0

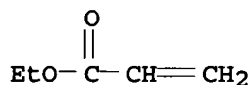
CMF C12 H15 N O4



CM 2

CRN 140-88-5

CMF C5 H8 O2



L9 ANSWER 25 OF 25 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 1980:23486 HCAPLUS

DN 92:23486

TI Polymers with lateral tricyclic imidyl groups crosslinkable by light

IN Zweifel, Hans; Bellus, Daniel

PA Ciba-Geigy A.-G., Switz.

SO Eur. Pat. Appl., 55 pp.

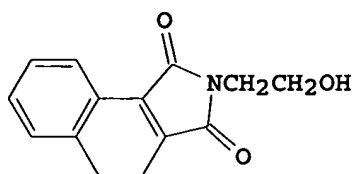
CODEN: EPXXDW

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 3552	A2	19790822	EP 1979-100274	19790131
	EP 3552	A3	19790905		
	EP 3552	B1	19820526		
	R: CH, DE, FR, GB, IT, NL, SE				
	US 4283509	A	19810811	US 1979-9984	19790206
	CA 1127792	A1	19820713	CA 1979-320889	19790206
	ES 477511	A1	19800116	ES 1979-477511	19790207
	JP 54117587	A2	19790912	JP 1979-12851	19790208
	JP 63023201	B4	19880516		
	US 4377668	A	19830322	US 1981-241169	19810306
	US 4377669	A	19830322	US 1981-241194	19810306
PRAI	CH 1978-1401		19780208		
	US 1979-9984	A3	19790206		
GI					



I

- AB Photocrosslinkable polymers containing tricyclic carboximido side groups, e.g. 3,4-dihydronaphthalene-1,2-dicarboximidoethyl, are prepared by esterifying a maleic acid or vinyl alc. polymer or by (co)polymerizing a monomeric tricyclic imide. Thus, 3,4-dihydronaphthalene-1,2-dicarboxylic anhydride [37845-14-0] was treated with H₂N(CH₂)OH [141-43-5] to give the hydroxyethylcarboximide (I) [72198-54-0] which (0.32 mol) was heated with 1:1 maleic anhydride-Me vinyl ether copolymer (anhydride content 0.64 mol.) to give the copolymer ester (II) [72231-43-7]. In a standard Stauffer step wedge photoresist test, II exposure for 1, 3, or 6 min. resulted in photocrosslinking at 5, 7, or 9 steps, resp.
- IC C08F008-30; C08G085-00; C08B037-00; G03F007-10
- CC 36-3 (Plastics Manufacture and Processing)
Section cross-reference(s): 25, 27, 74
- ST photocrosslinking naphthalenedicarboximide polymer; imide substituent
photocrosslinking polymer; crosslinking light carboximido polymer
- IT Polyamides, preparation
Polyesters, preparation
RL: PREP (Preparation)
(manufacture of photochem. crosslinkable)
- IT Crosslinking
(photochem., of polymers containing tricyclic carboximido side groups)
- IT Coating materials
(photocurable, manufacture of, containing tricyclic carboximido side groups)
- IT 37845-14-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(imidization of, with ethanolamine)
- IT 72186-88-0P 72199-04-3P 72199-05-4P 72199-06-5P
72199-07-6P 72199-08-7P 72199-09-8P
72199-10-1P 72199-11-2P 72231-39-1P
72231-40-4P 72231-41-5P 72231-42-6P
72231-43-7P 72231-44-8P 72231-50-6P
RL: PREP (Preparation)
(manufacture of photochem. crosslinkable)
- IT 17734-38-2P 72198-39-1P 72198-41-5P 72198-42-6P 72198-43-7P
72198-45-9P 72198-46-0P 72198-47-1P 72198-48-2P 72198-49-3P
72198-50-6P 72198-51-7P 72198-53-9P 72198-54-0P
RL: PREP (Preparation)
(preparation of)
- IT 95-92-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with Et phenoxybutyrate, in presence of sodium hydride)
- IT 2364-59-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with di-Et oxalate, in presence of sodium hydride)
- IT 62351-76-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with dihydrobenzocycloheptenedicarboxylic anhydride)
- IT 26734-09-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with dihydronaphthalene dicarboxylic anhydride)

IT 60-32-2 141-43-5, reactions
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with dihydronaphthalenedicarboxylic anhydride)

IT 2270-20-4
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with ethanol)

IT 72198-40-4 72198-44-8
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with ethanolamine)

IT 79-10-7, reactions 79-41-4, reactions
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with hydroxyethyldihydronaphthalenedicarboximide)

IT 108-95-2, reactions
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with isophthaloyl chloride derivative)

IT 72198-52-8
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with phenol)

IT 64-17-5, reactions
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with phenylvaleric acid)

IT 72199-04-3P 72199-06-5P 72199-07-6P
 72199-08-7P 72199-09-8P 72199-10-1P
 72231-39-1P 72231-40-4P 72231-41-5P
 72231-42-6P 72231-43-7P 72231-44-8P
 RL: PREP (Preparation)
 (manufacture of photochem. crosslinkable)

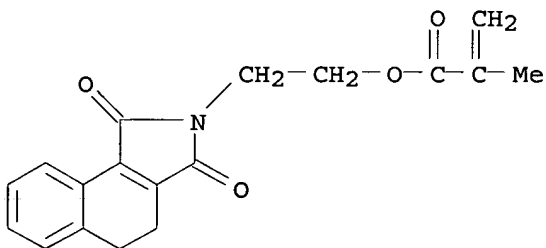
RN 72199-04-3 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(1,3,4,5-tetrahydro-1,3-dioxo-2H-benz[e]isoindol-2-yl)ethyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 72199-03-2

CMF C18 H17 N O4



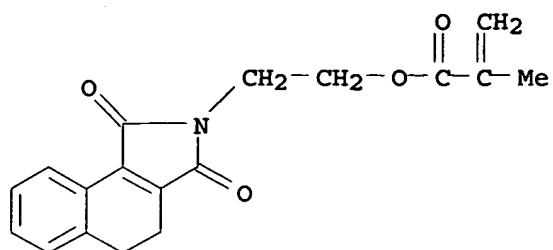
RN 72199-06-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(1,3,4,5-tetrahydro-1,3-dioxo-2H-benz[e]isoindol-2-yl)ethyl ester, polymer with 1-ethenyl-2-pyrrolidinone (9CI) (CA INDEX NAME)

CM 1

CRN 72199-03-2

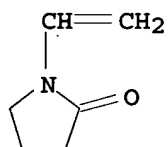
CMF C18 H17 N O4



CM 2

CRN 88-12-0

CMF C6 H9 N O



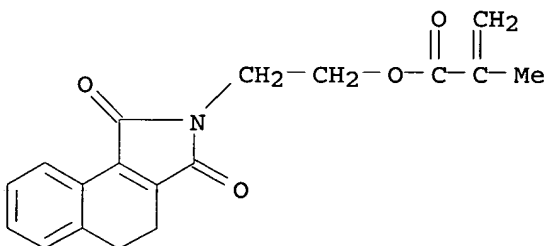
RN 72199-07-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(1,3,4,5-tetrahydro-1,3-dioxo-2H-benz[e]isoindol-2-yl)ethyl ester, polymer with 2-ethylhexyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 72199-03-2

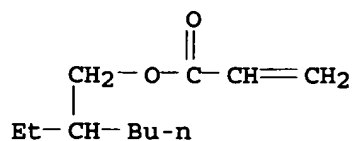
CMF C18 H17 N O4



CM 2

CRN 103-11-7

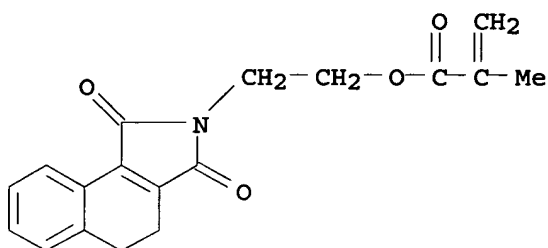
CMF C11 H20 O2



RN 72199-08-7 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with
 2-(1,3,4,5-tetrahydro-1,3-dioxo-2H-benz[e]isoindol-2-yl)ethyl
 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

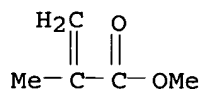
CM 1

CRN 72199-03-2
 CMF C18 H17 N O4



CM 2

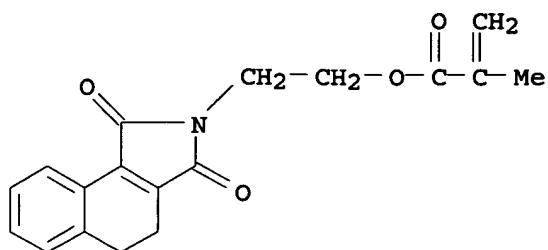
CRN 80-62-6
 CMF C5 H8 O2



RN 72199-09-8 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-, 2-(1,3,4,5-tetrahydro-1,3-dioxo-2H-
 benz[e]isoindol-2-yl)ethyl ester, polymer with 4-ethenylpyridine (9CI)
 (CA INDEX NAME)

CM 1

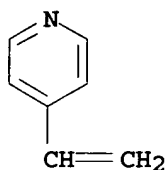
CRN 72199-03-2
 CMF C18 H17 N O4



CM 2

CRN 100-43-6

CMF C7 H7 N



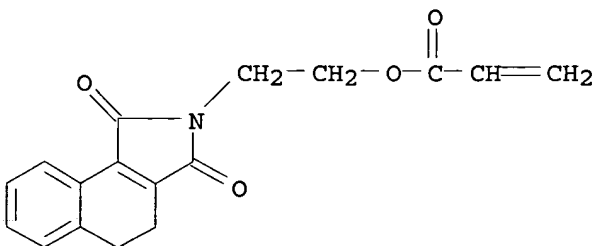
RN 72199-10-1 HCAPLUS

CN 2-Propenoic acid, 2-(1,3,4,5-tetrahydro-1,3-dioxo-2H-benz[e]isoindol-2-yl)ethyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 72198-50-6

CMF C17 H15 N O4



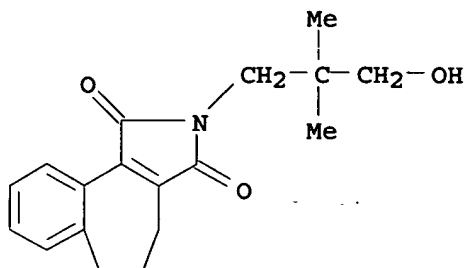
RN 72231-39-1 HCAPLUS

CN 2,5-Furandione, polymer with methoxyethene, 2,2-dimethyl-3-(3,4,5,6-tetrahydro-1,3-dioxobenzo[3,4]cyclohepta[1,2-c]pyrrol-2(1H)-yl)propyl ester (9CI) (CA INDEX NAME)

CM 1

CRN 72198-47-1

CMF C18 H21 N O3



CM 2

CRN 9011-16-9

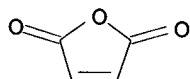
CMF (C4 H2 O3 . C3 H6 O)x

CCI PMS

CM 3

CRN 108-31-6

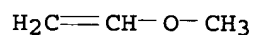
CMF C4 H2 O3



CM 4

CRN 107-25-5

CMF C3 H6 O



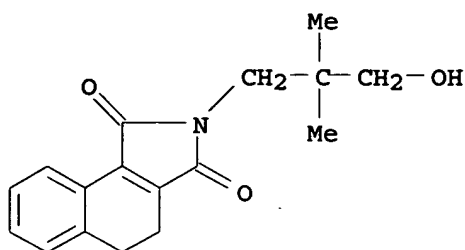
RN 72231-40-4 HCAPLUS

CN 2,5-Furandione, polymer with methoxyethene, 2,2-dimethyl-3-(1,3,4,5-tetrahydro-1,3-dioxo-2H-benz[e]isoindol-2-yl)propyl ester (9CI) (CA INDEX NAME)

CM 1

CRN 72198-46-0

CMF C17 H19 N O3



CM 2

CRN 9011-16-9

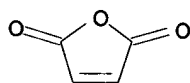
CMF (C4 H2 O3 . C3 H6 O)x

CCI PMS

CM 3

CRN 108-31-6

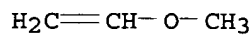
CMF C4 H2 O3



CM 4

CRN 107-25-5

CMF C3 H6 O



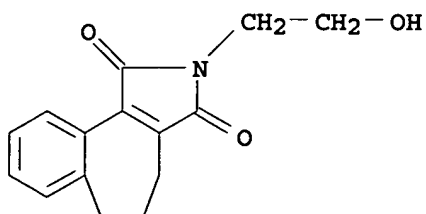
RN 72231-41-5 HCAPLUS

CN 2,5-Furandione, polymer with methoxyethene, 2-(3,4,5,6-tetrahydro-1,3-dioxobenzo[3,4]cyclohepta[1,2-c]pyrrol-2(1H)-yl)ethyl ester (9CI) (CA INDEX NAME)

CM 1

CRN 72198-39-1

CMF C15 H15 N O3



CM 2

CRN 9011-16-9

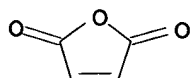
CMF (C4 H2 O3 . C3 H6 O)x

CCI PMS

CM 3

CRN 108-31-6

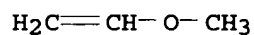
CMF C4 H2 O3



CM 4

CRN 107-25-5

CMF C3 H6 O



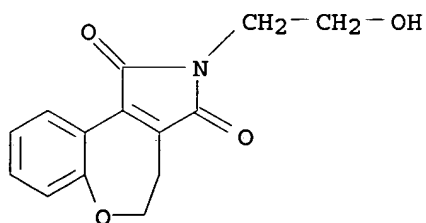
RN 72231-42-6 HCAPLUS

CN 2,5-Furandione, polymer with methoxyethene, 2-(1,3,4,5-tetrahydro-1,3-dioxo-2H-[1]benzoxepino[4,5-c]pyrrol-2-yl)ethyl ester (9CI) (CA INDEX NAME)

CM 1

CRN 72198-43-7

CMF C14 H13 N O4



CM 2

CRN 9011-16-9

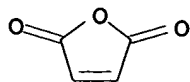
CMF (C4 H2 O3 . C3 H6 O)x

CCI PMS

CM 3

CRN 108-31-6

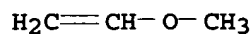
CMF C4 H2 O3



CM 4

CRN 107-25-5

CMF C3 H6 O



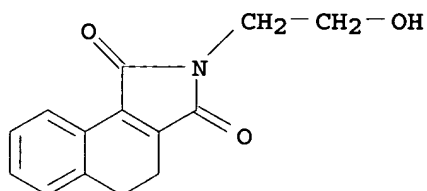
RN 72231-43-7 HCAPLUS

CN 2,5-Furandione, polymer with methoxyethene, 2-(1,3,4,5-tetrahydro-1,3-dioxo-2H-benz[e]isoindol-2-yl)ethyl ester (9CI) (CA INDEX NAME)

CM 1

CRN 72198-54-0

CMF C14 H13 N O3



CM 2

CRN 9011-16-9

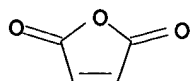
CMF (C4 H2 O3 . C3 H6 O)x

CCI PMS

CM 3

CRN 108-31-6

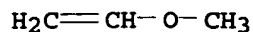
CMF C4 H2 O3



CM 4

CRN 107-25-5

CMF C3 H6 O



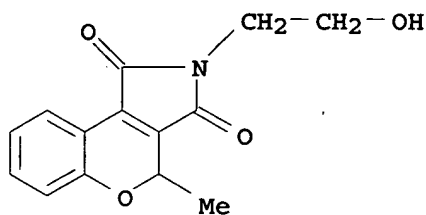
RN 72231-44-8 HCAPLUS

CN 2,5-Furandione, polymer with methoxyethene, 2-(1,4-dihydro-4-methyl-1,3-dioxo[1]benzopyrano[3,4-c]pyrrol-2(3H)-yl)ethyl ester (9CI) (CA INDEX NAME)

CM 1

CRN 72198-42-6

CMF C14 H13 N O4



CM 2

CRN 9011-16-9

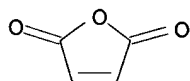
CMF (C4 H2 O3 . C3 H6 O)x

CCI PMS

CM 3

CRN 108-31-6

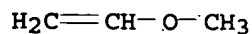
CMF C4 H2 O3



CM 4

CRN 107-25-5

CMF C3 H6 O



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